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ABSTRACT

This report summarizes the planning and implementation of an Educational System for the Seventies (ES-70), a research and demonstration program for developing a relevant, individualized, and economically feasible secondary school curriculum and organization. Research efforts are patterned to establish performance objectives for selected activities, design courses of studies, select media and materials, and develop teaching strategies. Project participants include 19 local school districts, their respective State education departments, the U.S. Office of Education, and other interested organizations. Five appendixes include statements on the project scope; correspondence; a list of related reports, brochures, newsletters, and other papers; inventories of project-related materials, and samples of the ES-70 NEWS. Related documents are ED 032 630 and ED 032 631. (Appendix B. Copies of Correspondence ppB1-13, may be of poor quality when reproduced because of marginal legibility.) (Author/LLR)

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EDUCATIONAL SYSTEM FOR THE SEVENTIES
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

An Educational System for the Seventies

FINAL REPORT

under Contract #OEC-1-7-071037-3596

November 5, 1969

E. F. Shelley and Company, Inc.

New York Washington

EA 002 924

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I. INTRODUCTION

A. Purposes

At a time when many of the established institutions of the nation have been challenged to change or give way, it has not been surprising to find many school districts engaging in critical assessment of their operations. They have been looking for or instituting those changes they believe will make their schools more successful and effective.

During the last several years, the great ferment in American education has yielded a rich array of innovative practices, each designed to deal with one or another aspect of the numerous crises besetting our schools. In almost every case the ultimate objective has been to improve the learning situation for the individual youngster so that his school experience will be effective, relevant to his needs and aspirations, and will make him a useful, functioning adult able to cope with, contribute to, and benefit from a fast changing society.

To this end, research and demonstration projects in education have been carried out at every level of the educational enterprise, public and private, in varying degrees of complexity and size.

What has now emerged that is unique, is the inception of a concerted local-state-federal effort to accomplish a major and specific goal: the systematic development of an improved comprehensive secondary school curriculum and organization that is relevant, individualized and economically feasible.

The program is called ES '70 - An Educational System for the Seventies.

The challenge is to overcome the growing disparity between traditional curricular offerings and education processes, on the one hand, and the current educational needs of large segments of the American population, on the other.

The task before the groups and agencies involved in the ES '70 project therefore, is to develop for the schools a relevant curriculum for the modern American youth that is keyed to his needs, his aspirations and to the adult roles which he may play. The desired educational program should afford each student a variety of options for his future - a job, further vocational training, college entry, or a combined work-study program. It should prepare him to cope more effectively with man-made environments. While grappling with the outer world, he must derive an inner feeling of satisfaction and control over his own destiny.

The task is also to redesign or modify and test the organization of the educational process and the educational system so that it is possible to implement this curriculum most effectively for the individual student, and most economically for the society.

Modifying the educational process has long been stymied by the difficulties of dealing systematically with the numerous interacting factors involved in the educational process. The availability of new practical technological aids and the sophisticated development of the new tools of systems analysis and systems management, have now made it possible to transform the educational process in a systematic and logical fashion so that every educator's dream of doing a good job for every child becomes practical and within reach.

It is within the context of a systems approach that the complex ES '70 program is being undertaken.

ES '70 is a research and demonstration program. Participants at each level are engaged in specific activities that are directly related to the total design of the program.

The heart of the program is the creation of a new curriculum. What should it be? How can it be formulated? What must we do about organizing and managing schools to make it possible for teachers to teach and students to learn in ways that are better than heretofore? What should this new individualized curriculum make possible?

The curriculum is being developed from educational objectives stated in specific performance terms. Individual instructional programs are to be based on realistic measures of student capability and progress. Instructional strategies will emphasize individualized learning and counseling. Appropriate staff organization and technological aids will be employed to enhance the effectiveness of teaching personnel.

In order to formulate the curriculum models which will achieve this overall objective, the research effort is patterned to establish performance objectives for selected activities, design the courses of studies, select media and materials and develop instructional teaching strategies. This effort will result in the development of new "learning modules" - specific instructional units prepared in printed, audio-visual, programmed, computer-based, or other form. Each "module" will be tested and validated within a school setting and then made available to other schools for local adaptation. The flexibility afforded by a variety of learning modules means that teachers will be able to adapt not only subject matter but the learning method itself to each student's requirements. Sight, sound and the printed word - the student will be able to use whatever approach is best suited to his individual style.

Participating in the ES '70 program are representative local school districts across the United States, their respective state education departments, and universities, foundations, private non-profit institutions, business and labor organizations, the U. S. Office of Education and other federal agencies.

The cooperating school systems represent old, new, small and large communities; national geographic distribution; cultural mixes; and varying levels of financial support from the poorest to the very wealthy. The combined student population of the 19 participating districts approximates 1.3 million students. Thirty-seven percent of the youngsters in these schools are from families with annual incomes below $5,000.

While the individual districts are designing and validating the learning modules in real school settings, they have behind them the resource and advice of their state education departments. A rich variety of supporting research and development activities relevant to the goals of ES '70 are being conducted by universities, by professional organizations, by other cooperating state and federal agencies.

The crucial question of how to change the curriculum and the school organization while at the same time fulfilling current daily obligations to students under present organizational structures is being studied as part of the research and demonstration program. Models for the process of orderly transition can be expected to emerge from these studies. Presently underway are projects on instructional management and career guidance, school organization and management, accreditation, and the development of instruments for measurement and evaluation.

Staff development within the local districts and on a national scale is an essential component of the ES '70 program design. The local districts, many of them in cooperation with nearby universities, are being engaged in sponsoring seminars and in-service training programs. In addition there are special institutes to which ES '70 faculty from all parts of the nation comes to exchange experiences and ideas. Universities have instituted appropriate courses to familiarize student teachers with the goals and strategies of the educational philosophy embraced by the

ES '70 program.

Within the participating states and local school districts, the responsible officials have been developing among board members, administrators, staff, parents, students and members of the community, an understanding of the objectives of the ES '70 program and the nature of the district's involvement with it. Engaging each group appropriately in planning and implementing the ES '70 program is one of their major tasks.

As program and research results are communicated back and forth through the operation of a carefully designed information and feedback system, it will be possible to revise, refine and modify what has been done. Thus, each participant will benefit from the experience of the others.

What will emerge?

- A school for the seventies.

- A learning environment of unprecedented richness and variety will be provided by various audio-visual aids, self-study systems, programmed instruction, educational television, computer-assisted instruction, single concept films, and communication linked study centers. New technological advances will be employed to free teachers from chores that are not an essential part of the inter-personal teaching process; both the teacher and the career guidance specialist will have increased time to devote to individual student needs. Information banks will contain up-to-the-minute materials in each field and curricular material in many forms for individual use by students. The student will be reinforced in his progress by minimizing failure, by building on his individual style, by involving him in the design of his study program and insuring steady gains in his achievement by selecting that course and those materials most suited to his needs each step of the way.

- An educational center where each student progresses at his own pace, with a teacher free to devote his attention to each individual as he needs it, and a curriculum relevant to the student's life.

If someone were to ask how the ES '70 system differs from what has existed in the past, the answer would be that it is different in kind but not in philosophy - it represents an effort to fuse the best of modern technology with the best educational principles evolved in this nation over the past two centuries. If there is any shift in attitude, it stems from a hardheaded awareness of the implications of the rapidity of change in our time. There must be less emphasis on what the student learns - and much more on the process of learning. The process of arriving at answers is more important than the storing of answers. Tomorrow will not listen to today's answers.

In addition, increased attention will be given to providing a relevant and enriched education to young people who are not candidates for college. This can be the case for as high as 80% of the total school population in some communities. ES '70 has set itself the task of providing these boys and girls with an education that prepares them for an open-ended future. They will be taught skills which will enable them to get responsible jobs after graduation - but they will be taught in such a way that this represents the beginning, not the end of their alternatives. Some students who discover that they are potential college candidates will already be on the right path because their individual abilities were determining their courses of study. Others will have gained the basic knowledge that is needed to start at one level in an occupational field and, with further study, will move up the ladder to more demanding positions. This kind of education, based on the idea of a broad constellation of related occupations, is vitally important to ES '70 because it meets the challenge of change. It permits a student trained for one responsibility to adapt himself to new responsibilities during the course of his life.

The swiftness of change, not only in science and technology but in the trades, businesses and professions as well, is recognized by educators. They are no longer willing to let ten years or five years or even two years elapse between the time that a more advantageous approach to teaching is found and the time that it is utilized in the public school system. They know that if we wait too long, any corrections we make may come too late to affect the ultimate outcome, a fact that jet pilots know very well. For if two supersonic jets discover that they are on a collision course while still a mile apart, it is already too late. Nothing they can do will avert a crash; they are moving too quickly and the planes respond too slowly.

American educators, who want to avoid future social collisions, are looking for changes that can be made today while there is still time. They are gripped by an understandable sense of urgency. There is nothing abstract about the future, as far as teachers are concerned. Every time they walk into a classroom and face the boys and girls before them, they are looking at tomorrow. Just as these young people are growing, and growing means changing, so the country is growing and changing. The important thing is to help tomorrow change for the better.

In the United States the future is forged in the public school classroom. ES '70 is a plan for forging a better future. By assuring every young person of an education that is uniquely his own, and one that will equip him to deal with the world on his own terms, ES '70 sets a new standard for educational excellence.

B. Procedures

Four main categories of activity comprise the substance of the current effort:

1. Staff Development
    a. Professional Pre-service
    b. Professional In-service
    c. Non-educational Professional Utilization
    d. Sub-professionals
2. Instructional Management and Career Guidance
    a. Educational Objectives
    b. Cluster Arrangements of Vocational Careers
    c. Curriculum Development
    d. Instructional Material
    e. Instructional and Learning Media
    f. Modular Scheduling
    g. Individualized Instruction
    h. Guidance Progress and Procedures
    i. Reduction of Failures
3. School Management
    a. Staff Utilization
    b. Information Handling
    c. Increased Efficiency in Communication
    d. Simulated Decision-Making in On-line Situations
    e. Scheduling Progress, and Accounting for Pupils
    f. Budgeting, Fiscal Accounting, Personnel Records

- g. Modification of Existing Plant
- h. New Structures

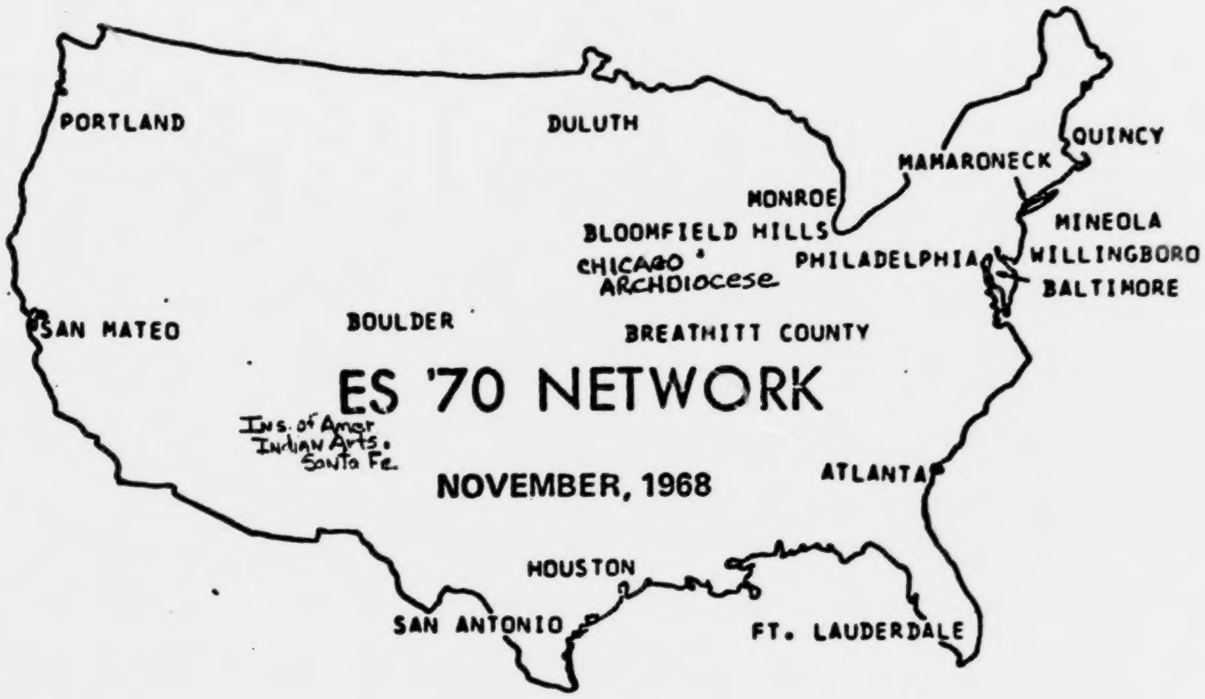
4. Evaluation

   - a. Student Assessment
   - b. School Accreditation
   - c. Use of Data Processing in Evaluation
   - d. Student Certification
   - e. General Evaluation of Educational Progress

After examining the results of these current research and demonstration activities and analyzing the experiences of the local school districts involved, the ES '70 network will diffuse the findings for use by other educational systems across the nation.

C. Organizational Structure

The network has functioned under two organizational structures, (1) from May 1967 to May 1969, (2) from May 1969 to the present. The distribution of schools in the Network is shown on the map following.


ES '70 NETWORK
NOVEMBER, 1968
PORTLAND
DULUTH
QUINCY
MAMARONECK
MONROE
MINEOLA
BLOOMFIELD HILLS
CHICAGO ARCHDiocese
PHILADELPHIA
WILLINGBORO
BALTIMORE
SAN MATEO
BOULDER
BREATHITT COUNTY
Ins. of Amer Indian Arts. Santa Fe
ATLANTA
HOUSTON
SAN ANTONIO
FT. LAUDERDALE

May 1967 to May 1969 - General Function of the Primary Network

1. Membership

In order for a school district to become a member of, and sustain its membership in, the ES '70 Network, the following minimum standards are to be adhered to:

a. The district shall agree with the general plans and objectives for ES '70.

b. Approval for participation in the network shall be formally acted upon by the Board of Education of the local district.

c. The local participating school district shall have written approval from the chief state school officer for its participation in ES '70, and shall have established an effective working relationship with the State Department of Education within its own state.

d. The chief administrative officer of the school district (hereafter referred to as the Superintendent) shall evidence his support of, and interest in, ES '70 through his attendance at network meetings.

e. The participating local school district shall provide necessary base line data in order to implement effective research.

f. Each district shall draw up its PERT chart showing the relationship of its anticipated program to the master PERT chart for the ES '70 network, and shall provide subsequent information as requested by the program director.

g. Progress reports shall be submitted to the executive committee by the eighteen member districts of the network on at least a semi-annual basis. The executive committee shall review these reports.

h. Results of such review and a report on the status of membership will be made to the entire network at the spring meeting.

i. When necessary, the executive committee will make recommendations for action regarding continuing membership in accordance with the foregoing criteria. Prior to making recommendations to the network, the executive committee will consult with the affected local school district, the appropriate local State Department of Education officials and the U. S. Office of Education.

j. Any member district of the ES '70 network may voluntarily withdraw from the primary network by informing the executive committee of its intention to do so and submitting the formal resolution of the local Board of Education indicating its withdrawal.

2. Structure
   a. There shall be eighteen (18) member school systems in the Primary Network, approved by the State Education Agency of their respective states.
   b. Modification of the Primary Network membership shall be effective on approval of the Governing Board.
   c. In addition to the active participation of the superintendent, each participating school system shall designate a Coordinator whose full-time responsibility shall be the maintenance of on-going relationships with the Primary and Secondary networks and the general coordination of all ES '70 activities at the local level. All coordinators shall attend the network meetings.
   d. There shall be exemplary membership in the Primary Network from the private school sector.

3. Function

In order to accomplish the general and specific goals of ES '70, the Primary Network will perform the following series of interrelated functions:

a. Formulation, testing and validation of the performance objectives.

b. Development, testing and validation of appropriate curricular materials consistent with the various learning modes.

c. Development and implementation of individualized learning strategies related to the instructional outcomes.

d. Design and implementation of appropriate teacher training programs of both an in-service and a pre-service nature.

e. Development and implementation of the system design, including the information system, as well as delineation of the interrelationships among network schools and between the Primary and Secondary Networks.

f. Dissemination of data to the other Primary Network schools.

g. Maintenance of relationships with a Secondary Network.

h. Maintenance of relationships with the

State Departments of Education as described in the following section.

General Function of the Governing Board

1. Membership
    a. The Governing Board shall consist of the eighteen superintendents of the ES '70 Primary Network as voting members, with the two designated representatives of the U. S. Office of Education as non-voting, ex-officio members.
    b. The two Chief State School Officers elected by the Chief State School Officers of the participating states shall be full voting members.
2. Functions
    a. There shall be a minimum of two annual meetings, one in the Spring and one in the Fall. These and all other meetings shall be called at the discretion of the executive committee.
    b. The Spring agenda shall include the presentation of the annual budget, a review of recommended policies from the executive committee, and the consideration of applications for membership in the Secondary Network after preliminary consideration and recommendation by the appropriate Chief State School Officer and the executive committee.

State Departments of Education in Relation to the ES '70 Network

The authority of the State within whose jurisdiction each member district is located is recognized as inherent. The written permission of the State Department of Education involved is a prerequisite for membership in either the Primary or Secondary Network. The Chief State School Officers of the states represented in the Primary Network shall elect two of their number who shall be full voting members of the executive committee and the governing board. Further, all activities resulting from actions taken by network members must meet the professional standards, regulations and legal statutes applicable within their states.

1. Using resources supplied by varying sources the State shall provide liaison services for the participating local districts and educational institutions and servicing agencies within the State.
2. Each participating district will request its State Department of Education to provide such consultative service as may be necessary and available.
3. The active participation by the respective State Departments of Education will be necessary in order to deal effectively with such areas

of concern as teacher accreditation, high school graduation requirements, local district and university articulation and the provision of such financial assistance as may be available and appropriate to support the participating local school district. Such measures will effect the realization of anticipated innovations and experimentation.

4. The two Chief State School Officers who serve on the executive committee shall report back to the annual meeting of the Council of Chief State School Officers, giving their assessment of ES '70 projects and procedures. This parent body may, in turn, evaluate the implications of ES '70 in broad and long-range terms, and express itself to the ES '70 system through its two representatives.
5. The Council of Chief State School Officers is enjoined to assist in the general dissemination of data through the various agencies represented by its total membership.
6. The executive committee structure outlined here, provides the means for state-level involvement in all ES '70 deliberations at the Federal level.

7. Under the aegis and at the discretion of the Chief State School Officers a secondary network may be established within the context of guidelines to be established by the Governing Board.

The Federal Government in Relationship to the ES '70 Program

Recognized as an integral part of the educational scene of the United States, the U. S. Office of Education shall be considered as an ex-officio member of the network and its executive committee. The U. S. Commissioner of Education shall assign two non-voting members to the executive committee. These U. S. Office of Education change officers shall be responsible for:

1. Supporting implementation of ES '70 projects.
2. The promotion of necessary legislation to acquire the funds required.
3. Consultation on the long-range implications of proposed projects, especially as they relate to prospects for relevant future legislation.
4. Informing the bureaus within the U. S. Office of Education and other relevant federal agencies (such as the OEO) of their opportunities for positive interaction with ES '70.
5. Coordinating the functions of the various regional educational laboratories with the

goals of ES '70.

6. Providing basic financial support for the research, development, dissemination and assimilation of information regarding ES '70 activities.
7. Providing leadership and assistance in locating additional resources from other agencies, both public and private, necessary to achieve the goals of the ES '70 program.
8. Establishing and maintaining adequate communications between State and Federal bureaus involved with ES '70 regarding all pertinent activities and plans of the program.
9. Consideration of the recommendations of the Executive Committee and the Governing Board in determining the nature and levels of financial support for the ES '70 program.

General Function of the Executive Committee Membership

The eight-member executive committee shall be composed as follows:

1. Six (6) ES '70 Primary Network Superintendents as elected by the governing board at its annual Spring meeting. Of these, two will be elected for a one-year term, two will be elected for two-year terms and two will be elected for three-year terms.

2. Two (2) representatives of the Council of Chief State School Officers, to be appointed no later than May 1 of each year. Both of these must be from states which are directly involved in the Primary Network.
3. Two representatives of the U. S. Office of Education appointed by the U. S. Commissioner of Education shall be ex-officio, non-voting members of the executive committee.

Functions

1. The executive committee shall annually elect a Chairman who shall preside at all of its meetings as well as those of the Governing Board.
2. The executive committee shall hold not less than three nor more than twelve meetings per year.
3. At least two annual meetings shall be held for the purpose of preparing reports, respectively, for the Spring business meeting and the Fall program meeting of the Governing Board. Specifically, a proposed budget shall be prepared for the Spring Meeting and a schedule of policy recommendations for the Fall Meeting.
4. The executive committee may call such additional meetings of the Governing Board as they deem

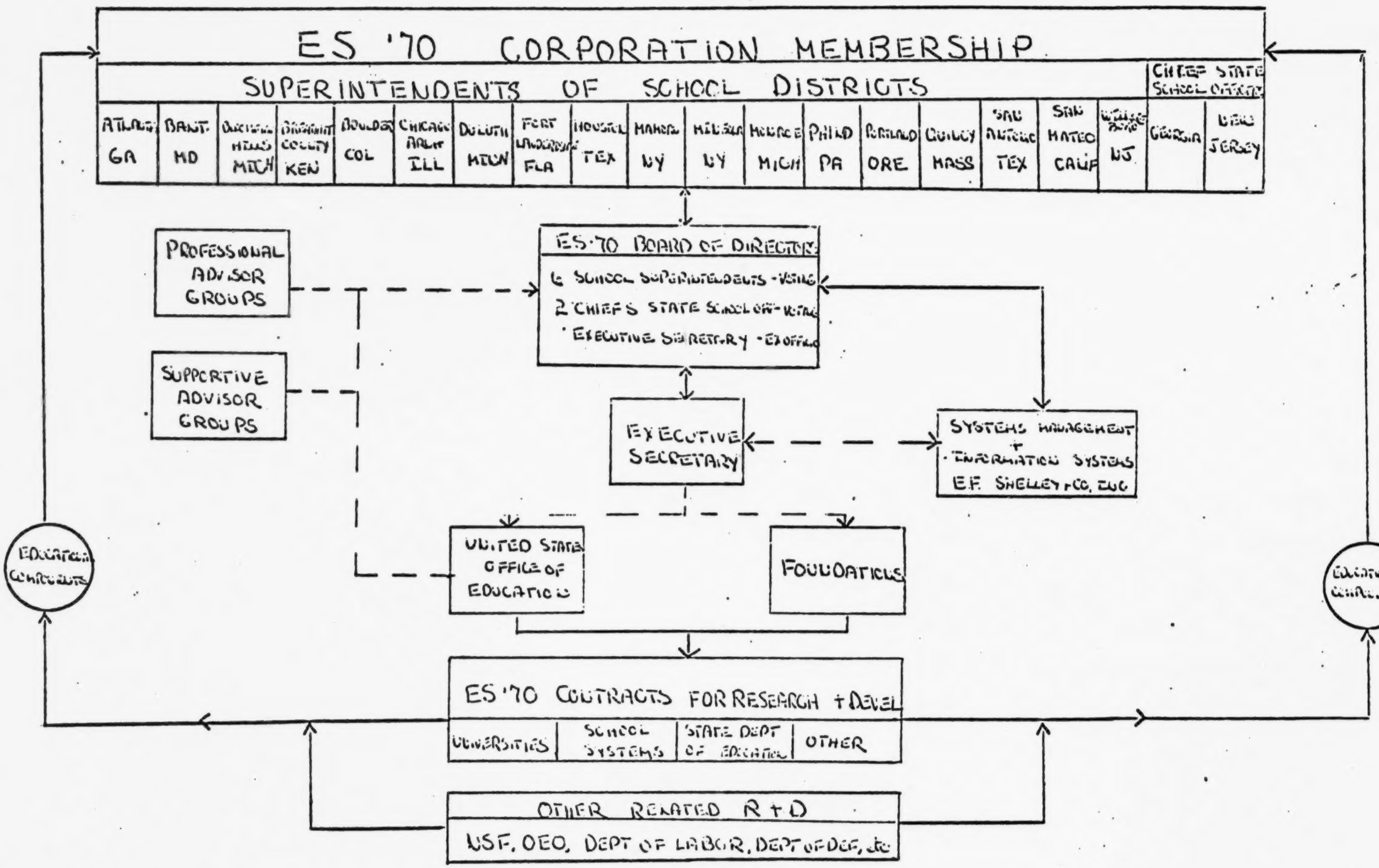
necessary.

5. A primary function of the committee will be the annual review and evaluation of the progress of the network as a whole and of its individual member systems.
6. The ex-officio representatives of the U. S. Office of Education, though non-voting, will participate in the deliberations of the executive committee as well as those of the Governing Board.
7. In order to assist in the performance of these functions, the executive committee may consider the establishment of the position of Project Director to prepare agendas, appropriate budgets and reports, assist in the coordination of the Primary and Secondary Networks and review legislative needs and procedures of the ES '70 Network. The direct and incidental costs for the maintenance of this position may be met by a grant from the U. S. Office of Education or other appropriate sources.
8. The executive committee will make recommendations on the responsibilities and general functions of the Secondary Network for approval by the Governing Board.

May 1969 to Present Organizational Structure

What became apparent over the past two years was the need for a modest reorganization of the ES '70 program to enable it to function more effectively in two general areas, a) policy determination, b) administration. Under the foregoing organization there was no clear delineation of the policy making function, nor the administrative function. Furthermore, the complexity of the program and its direction necessitated meetings of the present executive committee monthly and demands upon the time of its members that are not compatible with their full-time responsibilities as superintendents of schools and chief state school officers.

Accordingly, the network incorporated and is in the process of employing an executive secretary. The reorganization appears in the chart on the following page.


ES '70 CORPORATION MEMBERSHIP
SUPERINTENDENTS OF SCHOOL DISTRICTS
ATLANTA GA
BALT. MD
BLOOMFIELD HILLS MICH
BREATHITT COUNTY KEN
BOULDER COL
CHICAGO AREA ILL
DULUTH MICN
FORT LAUDERDALE FLA
HOUSTON TEX
MAHER NY
MINEOLA NY
MONROE MICH
PHILA PA
PORTLAND ORE
QUINCY MASS
SAN ANTONIO TEX
SAN MATEO CALIF
WILLINGBORO NJ
CHIEF STATE SCHOOL OFFICERS
GEORGIA
NEW JERSEY
PROFESSIONAL ADVISOR GROUPS
SUPPORTIVE ADVISOR GROUPS
ES·70 BOARD OF DIRECTORS
6 SCHOOL SUPERINTENDENTS - VOTING
2 CHIEFS STATE SCHOOL OFF - VOTING
1 EXECUTIVE SECRETARY - EX OFFICIO
EXECUTIVE SECRETARY
SYSTEMS MANAGEMENT + INFORMATION SYSTEMS
E.F. SHELLEY + CO. INC.
UNITED STATES OFFICE OF EDUCATION
FOUNDATIONS
ES '70 CONTRACTS FOR RESEARCH + DEVEL
UNIVERSITIES
SCHOOL SYSTEMS
STATE DEPT OF EDUCATION
OTHER
OTHER RELATED R + D
NSF, OEO, DEPT OF LABOR, DEPT OF DEF, etc
EDUCATIONAL COMPONENTS
EDUCATIONAL COMPONENTS

The foregoing is a policy making and administrative reorganization.

It is thought such a reorganization will improve the effectiveness of the process of change. Relationships will remain basically unchanged from the present structure as the network and its supporting agencies continue their present activities and subsequent ES '70 related projects.

An examination of the functions of the executive secretary will clarify further the reorganization. They are as follows:

1. The executive secretary appointed to a three-year term by the Board of Directors, shall be responsible exclusively to the Board of Directors and the Governing Board and shall report to the Chairman of the Board of Directors.
2. He shall be responsible for preparing the agenda for all Board of Directors meetings in consultation with the Chairman thereof, and such others as should be consulted.
3. He shall prepare the annual budget for the Board of Directors approval and subsequent consideration by the Governing Board. He shall assist with the preparation of budget at the local, state, and federal levels.
4. He shall provide for the general coordination of

both primary and secondary networks, and shall work closely with the local coordinators of all participating school districts.

5. He shall supply periodic reports as requested by the Board of Directors.
6. He shall acquaint himself with legislative procedures at all levels of government and analyze the legislative needs of current and proposed ES '70 projects, both in terms of enabling and supportive legislative action. He shall meet with legislators as appropriate.
7. Maintain contact with Chief State School Officers.
8. Establish and maintain direct liaison with E. F. Shelley and Company, Inc., concerning status of network and network related activities.
9. Establish and maintain liaison with appropriate lay and professional associations.
10. Attend all network meetings, Board of Directors meetings, coordinators meetings.
11. Interpret the network policy and programs as directed by the Chairman of the Board of Directors.
12. Brief superintendents and coordinators new to the ES '70 program.
13. Enlist aid of educational leadership outside the ES '70 network as appropriate.
14. Perform such other functions as may be directed by the Chairman of the Board of Directors.

By-Laws of ES '70

ES '70 is a not-for-profit corporation incorporated under the laws of the District of Columbia.

ARTICLE I

Members

1. Original Members. The original members of the corporation, all of whom shall be Voting Members, are as follows: (Eighteen Superintendents of Schools and two Chief State School Officers by name).
2. Election of Members. The Board of Directors may elect to membership such persons as it deems desirable and qualified and shall designate, at the time of election, the class of membership.
3. Termination of Membership. Any member shall have the right to resign at any time by giving 30 days written notice to the corporation. The Board of Directors shall have the right to terminate any membership in the corporation after consultation with the affected member.
4. Certificate of Membership. The Secretary shall issue to each member of the corporation a certificate of membership duly authenticated by any two officers and the Secretary shall enter the name of every member upon a membership roll which shall be maintained by the Secretary. Certificates of membership shall be non-negotiable and non-transferable.

5. Meeting of Members.

   a. Place of Meeting. Meetings of members may be held at such place within or without the District of Columbia as may be provided in the notice of meeting.

   b. Annual Meeting. The annual meeting of members shall be held in the month of July, on such date as shall be fixed by the Board of Directors of the corporation, at 10 A.M.

   c. Special Meetings. Special meetings of members shall be held on the dates and at the times provided from time to time in the notice of meeting. Special meetings of members may be called by the Board of Directors and shall be called upon the written request of at least 33 1/3% of the Voting Members of the corporation.

   d. Notice. Written or printed notice stating the place, day and hour of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called shall be delivered not less than 5 nor more than 50 days before the date of the meeting either personally or by mail to each Voting Member entitled to vote at such meeting.

e. Quorum. The presence in person or by proxy of at least a majority of the Voting Members shall constitute a quorum for the transaction of any business of any meeting of members. If there be no quorum, the members present in person or by proxy may by a majority vote adjourn the meeting from time to time without notice other than announcement at the meeting, until a quorum is obtained.

f. Conduct of Meetings. Meetings of members shall be presided over by the President and in his absence by a chairman chosen at the meeting. The Secretary of the corporation and in his absence, an assistant secretary, and if both are absent, a person chosen at the meeting, shall act as secretary of the meeting.

6. Voting by Mail. Voting on all matters, including the election of directors, may be conducted by mail.

ARTICLE II

Directors

1. Functions. The affairs of the corporation shall be managed by the Board of Directors of the corporation.

2. Number of Directors. The Board of Directors shall consist of eight persons, two of whom shall be Chief State School Officers.
3. Election of Directors. The directors of the corporation shall be elected by the Voting Members at the annual meeting of members or by a vote conducted by mail.
4. Term. The Board of Directors named in the Articles of Incorporation shall hold office until the first annual meeting of members and until their successors have been elected and qualified. Thereafter, directors who are elected by mail or at an annual meeting of members, and directors who are elected in the interim to fill vacancies and newly created directorships, shall hold office until the next annual meeting of members and until their successors have been elected and qualified. In the interim between annual meetings of members or of special meetings of members called for the election of directors, newly created directorships and any vacancies in the Board of Directors, including vacancies resulting from the removal of directors for cause or without cause, may be filled by the vote of the remaining directors then in office, although

less than a quorum exists.

5. Meetings of Directors.

   a. Place of Meeting. Meetings of directors may be held at such place within or without the District of Columbia as may be provided in the notice of meeting.

   b. Time of Meetings. Meetings of the Board of Directors shall be held on the dates and at the times fixed from time to time by the Board of Directors.

   c. Notice. Written, oral, or any other mode of notice of the time and place shall be given for special meetings not less than 3 nor more than 50 days before the date of the meeting. The notice of meeting need not specify the purpose of the meeting.

   d. Quorum and Action. A majority of the number of directors fixed from time to time by these by-laws shall constitute a quorum except when a vacancy or vacancies prevents such majority, whereupon a majority of the directors in office shall constitute a quorum. A majority of the directors present, whether or not a quorum is present, may adjourn a meeting from time to time, without notice other than announcement at the meeting, until a quorum is obtained.

e. Conduct of Meetings. Meetings of directors shall be presided over by the President and in his absence by a chairman chosen at the meeting. The Secretary of the corporation and in his absence, an assistant secretary, and if both are absent, a person chosen at the meeting, shall act as secretary of the meeting.

6. Committees. The Board of Directors may, by resolution adopted by a majority of the directors in office, designate and appoint one or more committees, which shall have and may exercise the authority of the Board of Directors in the management of the affairs of the corporation as and to the extent provided in the resolution of the Board designating and appointing such committee; each such committee shall consist of two or more of the directors of the corporation. In addition, other committees, not having and exercising the authority of the Board of Directors in the management of the corporation, may be designated and appointed by a resolution adopted by a majority of the directors present at a meeting at which a quorum is present.

ARTICLE III

Officers

1. Offices. The directors shall elect a President, a Secretary, and a Treasurer, and may elect a Chairman of the Board of Directors, a Vice-Chairman thereof, and one or more Vice-Presidents, Assistant Secretaries, and Assistant Treasurers, and may elect or appoint such other officers and agents as are desired. Any number of offices may be held by the same person, except the offices of President and Secretary.
2. Term. The officers shall be elected by the directors as soon as practicable after the annual election of directors. Each officer shall hold office until the next annual election of officers and until his successor has been elected and qualified. Vacancies may be filled by the Board of Directors at any time.
3. Powers and Duties. Officers shall have the powers and duties normally appertaining to their offices and such other powers and duties as may from time to time be assigned to them by the Board of Directors.

ARTICLE IV

Corporate Seal

The corporate seal shall be in such form as the

Board of Directors shall prescribe.

ARTICLE V

Amendments

The by-laws of the corporation may be made, and shall be subject to alteration and repeal, by the Voting Members of the corporation, at any annual or special meeting, and by the Board of Directors at any regular or special meeting.

ARTICLE VI

Indemnification

a. The corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit, or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was unlawful.

b. The corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable for misconduct in the performance of his duty to the corporation.

c. To the extent that a director, officer, employee or agent of the corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b), or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him in connection therewith.

d. Any indemnification under subsections (a) and (b) (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he had met the applicable standard of conduct set forth in subsections (a) and (b). Such determination shall be made (1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the Voting Members.

e. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding as authorized by the Board of Directors in the manner provided in subsection (d) upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount unless it shall ultimately be determined that he is entitled to be indemnified by the corporation as authorized in this section.

f. The indemnification provided by this section shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any by-law, agreement, vote of Voting Members or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

In attempting to achieve the proposed new organizational structure, the network is fully aware that neither the states nor localities involved are prepared at this point to commit themselves to the financial support of that structure. The ES '70 Corporation is therefore seeking private support to continue the pursuit of its goals, until the commitment of the state and local authorities is sufficiently developed.

--More involvement on the part of the private sector could be anticipated, at a time when such involvement is an indisputable requirement for educational progress;

--A broader and more general approach to the various federal educational agencies is possible since exclusive identification of ES '70 with the Bureau of Research has been removed. (It should also be added that this Bureau has manifold and pressing responsibilities, and that administering a national program of this kind is not completely consistent with its basic functions.);

--Under the new structure, the state and local districts have more authority and policy-making power, with a consequent increase in their commitment to the project;

--Any suggestion of federal control of education is avoided;

--There should be more involvement of the teaching professionals themselves, since the decision-making process will be carried out in closer proximity to them and to the classrooms in which they serve.

D. The Innovations in Each Participating School System

These are included as references 24 and 84.

E. Related Research and Development Projects Currently in Progress

These are included as references 40 and 108.

II. SUMMARY OF WORK PERFORMED UNDER THIS CONTRACT

Introduction

The Scope of Work and supplement (see Appendix A) which outlined the responsibilities of E. F. Shelley and Company, Inc., in providing systems management assistance to the U. S. Office of Education for the preparation, organization and conduct of ES '70 included the following specific tasks to be performed when assigned by the U. S. Office of Education.

A. School Network Implementation and Servicing

--Help OE establish criteria for the selection of pilot schools and other participating groups.

--Help OE select pilot schools and districts, to make up the most appropriate network.

--Coordinate activities of local districts to insure maximum cooperation and to avoid duplication.

--Help OE and the districts establish appropriate evaluation techniques as needed.

--Help OE establish procedures for monitoring progress of each school or university involved in ES '70 contract.

--As program components are installed in pilot schools, help OE maintain a progress record so that feedback permits prompt revision.

--Help OE establish procedures for exchange of information among all ES '70 participants.

--Help organize conferences, prepare agenda and informational materials and act to insure proper information exchange throughout program.

--Have educational team make regular visits to local districts for following reasons:

--to improve coordination and monitoring of ES '70 district activities.

--improve communication between districts on one hand and executive committee and OE on the other, to provide necessary feedback.

--identify program areas requiring further definition.

--help OE and the Executive Committee furnish timely reaction and response, both to specific district programs and regarding general policy.

--allow for follow-up and supplementary information gathered by questionnaires.

--provide more in-depth knowledge of innovative programs already underway in districts.

--cooperate with districts to identify particular items of information and ways to collect key data for subsequent analysis and processing.

--learn more about current information processing approaches being used in local districts for the following purposes:

--to avoid duplication and burdensome requirements when ES '70 data collection begins on regular basis.

--to draw on applicable current information-processing in design of ES '70 system.

--to facilitate changes or added procedures to be requested of districts for ES '70 information needs.

--to aid in identification of specific processing alternatives and requirements in the districts for possible adaptation to ES '70 and further application for projected regional data processing centers.

--to identify and organize data elements for ES '70 programs to achieve compatibility and comparability of data handling among districts.

--expedite both exchange and establishment of information system by producing needed printed materials as follows:

--a summary publication of local district base line data for network distribution.

--the findings of a survey of all local districts' data processing capabilities and applications and other pertinent information to develop information processing approaches for ES '70.

--initial steps in the design of forms for storage of information that is compatible, whether records are kept on paper, in EAM systems, or in ADP systems.

--production of other material as requested.

B. Program Management, Monitoring and Evaluation

--Help OE lay out detailed operating plan for ES '70.

--Assist OE to define an "equal opportunity curriculum."

--Assist OE in analyzing behavioral requirements.

--Assist OE in selecting terminal performance specifications.

--Assist OE in developing appropriate media, measurement instruments, and technical inputs.

--Assist OE in organizing teacher and administrative staff training.

--Assist OE in the installation of the experimental curriculum in pilot schools.

--Help OE establish PERT schedules and monitoring programs.

--Assist OE to insure that program objectives reflect the combined effort of school, industry and community.

--Help OE prepare and evaluate in-service staff training programs.

--Help OE coordinate in-service training with university teacher-training programs to establish new university programs.

--Help OE develop strategy to establish career groupings that will serve present and future manpower needs, and the training for which can be installed in participating schools.

--If adequate evaluation instruments do not exist, help OE determine how new instruments should be prepared.

--Help establish cost-effectiveness programs that cover both the cost of R&D, and projected costs of using the curriculum being designed.

--Review desirability of designing and programming a data processing system capable of monitoring the entire program from beginning to end.

C. Research Program Coordination

--help OE develop overall plan for R&D program of ES '70.

--help OE coordinate the planning, development, try-out and validation, modification and operation of new instructional modules.

--help OE enlist services of private commercial contractors for R&D.

--help identify R&D projects to be initiated each year.

--help prepare specifications and invitations to bid on R&D programs.

--propose agenda and develop pertinent material for R&D bidders' conferences.

--help OE analyze and evaluate proposals and bids.

--help OE establish procedures for monitoring the progress of each private contractor.

--expedite both exchange and establishment of information system by producing needed printed materials as follows:

--a list of essential data that should be maintained for each ES '70 student, to be used in subsequent ES '70 research.

D. External Communication

--help OE disseminate ES '70 information via liaison with American Vocational Association and other professional associations.

--help OE make use of publications in professional journals, regular reporting to State Education department and appropriate regional agencies in disseminating ES '70 information.

--help OE and districts develop professional support for new curriculum via communication to professional associations and publication in appropriate media.

--assist in preparation of summary reports periodically on progress of entire program.

--have educational team make regular visits to local districts for following reasons:

  --to develop central primary source of ES '70 information to be drawn upon for newsletters, reports, etc.

--expedite both exchange and establishment of information system by producing needed printed materials as follows:

  --a monthly newsletter covering broad spectrum of ES '70 activities.

  --a handbook on all current innovative practices in network schools, for distribution to participating districts.

  --a definitive booklet describing both anticipated goals and procedures of ES '70.

  --an audio-visual presentation suitable for use by all participating agencies to describe ES '70 program.

  --a question-and-answer handbook that clarifies many of the issues and procedures of the ES '70 program.

The four main categories of tasks, while convenient for this reporting, cannot be mutually exclusive. Very often activities performed by the contractor related to a process of some kind, and as a consequence,references noted may be cited in two or more categories of this report; but with the same reference number.

Since the volume of material referenced is so great, and in order to comply with the direction included in paragraph six of the letter of September 19, signed by Mr. Daughtridge, the referenced material has been placed in file folders appropriately numbered, crated and delivered to Mr. Robert Pruitt with this report. They are too bulky to be attached as appendices since they fill a standard file drawer. The list of these materials is included as Appendix C.

Work Performed by Contractor

A. School Network Implementation and Servicing

1. Beginning May 5, 1967, commencement date of the contract, preparatory work was undertaken leading to the meeting of 15 school superintendents and their assistants at Fort Lauderdale, Florida, on May 11th and 12th. The character and organization of the ES '70 program was outlined at this meeting. It was agreed that a local program coordinator would be appointed from each participating school district, and that a summer workshop would be conducted to assist the coordinators in preparing for their role in the ES '70 development program. It was also agreed to hold the next meeting of participating superintendents in September and an executive committee of four superintendents was named to coordinate the overall program between full meetings. These matters are set forth in detail in ES '70 Report #1, prepared and distributed for the Office of Education by this contractor. Reference 1.

2. During the month of June, detailed specifications for the summer workshop were developed by the contractor. These were reviewed with the DCVER Curriculum Advisory Committee which met in Washington on June 16 and 17, and were revised and

transmitted to the Office of Education to provide specific guidelines to the Bloomfield Hills School District in the organization of the summer ES '70 coordinators workshop planned for August 21 to 31, 1967. The major activities during the rest of the summer of 1967 centered around preparation for, and implementation of, the workshop. E. F. Shelley and Company, Inc., assisted the Office of Education in the following ways:

a. Maintained personal and telephone contact with Bloomfield Hills to expedite program planning.

b. Revised the preliminary workshop program planned by Bloomfield Hills in order to bring it into congruence with the philosophic and operational guidelines of the Office of Education. Reference 2.

c. Initiated contact with consultants nationally who could contribute substantively to the conference and finalized the workshop schedule to remove scheduling conflicts for consultants.

d. Secured resource material dealing with Behavioral Objectives from various publishing firms.

   e. Planned and delivered the following presentations to the workshop participants:
      (1) The Systems Approach to Education
      (2) The Role of Society in the School
      (3) The Role of PERT in Program Planning and Management
      (4) An informal discussion of problems related to the initiation of change in the local school district.

3. The contractor initiated planning of the superintendents' and coordinators' meeting to be held in Duluth, Minnesota, September 28-29, 1967. This work included:
   a. Preparation of preliminary materials for the meeting.
   b. Contacting a number of school systems for relevant information and material which they wished to be included in the Duluth conference.
   c. A tentative agenda was prepared in conjunction with the host school system and the chairman of the executive committee.
   d. Preliminary plans were reviewed with the Office of Education and modifications

   were made in the tentative agenda and materials.

   e. Final copies of preliminary PERT charts and guidelines for drafting behavioral objectives were prepared. Agendas were finalized and duplicated. Reference 3.

   f. Assistance in the running of the conference including the presentation of preliminary PERT charts and schedules for modification and suggestions of all school systems represented.

4. The first field visit to a network school district was made to Philadelphia in October, 1967.

5. Procedural recommendations for implementing the primary and secondary network policy statements were completed and printed for distribution to Mr. Bushnell and members of his staff as well as the ES '70 executive committee on November 19, 1967. Reference 5.

6. Preliminary lists of essential data for the information system being developed for ES '70 by the contractor were compiled. Reference 6.

7. In consultation with members of Mr. Bushnell's staff, the ES '70 report letterhead was revised

to include a complete listing of the 17 school districts making up the ES '70 system. Once this revision was completed ES '70 progress report #3 was printed for distribution to members of the Office of Education staff and the Executive Committee of ES '70. In addition, this progress report was prepared in sufficient quantity for distribution to all who were to attend the Commissioner's meeting on November 20, 1967. Reference 4.

8. In order to provide an additional review of the policy statements, PERT charts, and the progress of a sub-committee appointed to draft a revised policy statement on Local-State-Federal relationships, a meeting of the Executive Committee of ES '70 was scheduled for December 17 and 18 in Ft. Lauderdale, Florida. An analysis of the expenses and travel times to conduct such a conference in Ft. Lauderdale was completed by the contractor. As a result of this analysis, the conference was re-scheduled to take place in Washington, D. C. Re-scheduling this meeting resulted in a cost reduction and a reduction in travel time required for participants to arrive at the conference site. Meetings were held with Dr. Ben Wallace to estab-

lish the conference agenda.

9. On January 19, 1968, a meeting was conducted at the offices of E. F. Shelley and Company, Inc., Washington, D. C., to review the policy and procedure statements which had been drafted by Dr. L. V. Rasmussen. The following tasks were to be carried out by E. F. Shelley and Company, Inc.:
    a. The introduction was to be revised in accordance with recommendations of various participants in the conference.
    b. The section dealing with the general function of the secondary network was to be deleted.
    c. Suggested changes in the proposed structure for the ES '70 segment of the document was to be revised incorporating suggestions made by various participants in the conference.
    d. Subsequently the suggested changes were incorporated and reviewed with Dr. Ben Wallace, Chairman of the Executive Committee. Following this review, policy and procedure statements were finalized and prepared for reproduction.
10. A complete tabulation of the results of base-line data questionnaires was completed January, 1968.

Further, an analysis of essential information requested in the base-line data questionnaire which was not included in the returned questionnaire was noted and supplementary letters to each district were prepared. These letters and supplementary questionnaires were mailed to the district coordinators with a request that the up-dated information be returned to E. F. Shelley and Company, Inc. A narrative report based on the initial data received from 16 of the 17 districts in the ES '70 network was prepared. Reference 7.

11. Realizing that staff limitations in local school districts precluded the possibility of each district conducting an in-depth survey of existing research data which supports and forms the basic rationale for the establishment of an ES '70 program, the contractor initiated an extensive research program and began an examination of research programs reported in ERIC. The initial results of this activity were completed and prepared for duplication. A list of appropriate and pertinent research was prepared for presentation by the contractor to the general meeting to be held in Atlanta.

12. Work carried out by E. F. Shelley and Company, Inc., for the Atlanta network meeting included:

a. Preparation of agenda and supporting materials. Reference 13.

b. In order to provide a basic understanding and listing of the elements of an ES '70 school, a preliminary paper covering some of these elements was prepared. The first draft of this effort was completed and presented to the general meeting.

c. During the meeting of the ES '70 network, the historian provided by the contractor for the ES '70 program kept detailed records of all significant activities and events.

d. The research service was described in detail. Materials collected to date were distributed. Reference 113. Members were informed that they will periodically receive additional cards containing information relating to research pertinent to ES '70.

e. The development of the PERT chart over the past seven months was historically reviewed and a detailed explanation and the rationale for its presentation in its current format was supplied. Reference 8.

f. It was explained to all superintendents and coordinators of the participating districts who attended the meeting that a representative of the Systems Design Division of E. F. Shelley and Company, Inc., will visit some school systems in the network to:

    (1) Assist the local coordinators in preparing the PERT for their local district.

    (2) Secure information necessary for the development of a meaningful information system.

    (3) Provide information to answer questions which local coordinators, department heads, or teachers may have regarding ES '70.

    (4) Secure the information which will permit the synthesizing of the kinds of meaningful data necessary to assess pupil progress in the ES '70 participating districts.

13. Visits to some systems revealed a keen desire on the part of teachers, department heads, guidance department chairmen, administrators and the program coordinators in these districts to receive more

information regarding innovations underway in the other school districts connected with the ES '70 program. Further, the coordinators and others raised questions which they felt should be answered in order to increase the efficiency of the ES '70 network and to improve their understanding of specific areas of concern regarding the ES '70 program.

In order to provide districts of the ES '70 network with definitive information regarding innovative programs presently in operation throughout the network, the following actions were taken by the contractor:

a. A survey of innovative programs was initiated. Survey forms were mailed directly to the coordinators of ES '70 programs, local districts.

b. To insure dissemination of the information regarding innovative practices to all those participating in the ES '70 program, planning was begun for the preparation and publication of a small document which would contain all pertinent information regarding the reported innovative programs.

c. The returned survey forms were edited for inclusion in a publication entitled, Reported Primary Network Innovations.

Reference 24.

14. A staff member visited the Nova School District in Fort Lauderdale, Florida on March 11 and 12, 1968. At this time some of the problems and progress of Nova High School were discussed and particularly the ES '70 program with the Nova coordinator. In addition, he discussed the implications of the information-sharing system with the director of Nova High School, Dr. Arthur Wolfe. A number of the specific items being considered for inclusion in the ES '70 information system were discussed in detail.

15. For the San Mateo network meeting on May 23-24, the contractor performed the following assigned tasks:

    a. Letters of invitation to the San Mateo Conference were written for signature by Dr. Ben Wallace, Chairman of the Executive Committee.

    b. The publication, Reported Primary Network Innovations, was completed and distributed to all participating school districts at the meeting.

    c. A list of questions submitted by ES '70 coordinators and referred to in more detail under the External Communication Section of this report was arranged according to categories and responses secured from appropriate Office of Education personnel. These were included in a booklet which was also distributed at the network meeting. Reference 22.

d. During the meeting, critique sessions were conducted on the ES '70 document draft and the film being developed by the contractor.

e. The summary of the San Mateo conference was completed and distributed to the member systems and other concerned. Reference 26.

f. The minutes of the Executive Board meeting held in San Mateo were completed and distributed to appropriate persons. Reference 25. Included was a report of the ES '70 Coordinators meeting. Reference 25A.

16. A meeting was convened by the contractor at the request of Dr. Morgan for the representatives of six ES '70 school districts with Title III projects for the purpose of working out cooperative efforts on June 24 and 25, 1968. A summary of this

meeting was prepared for Dr. Robert Morgan, U. S. Office of Education and was distributed to all concerned. Reference 28.

17. A meeting was held with Dr. Ben Wallace, chairman of the Executive Committee at which time additional items were suggested for the agenda of the next meeting of the Executive Committee. These items included the need for a lay advisory group, possibly of parents and business people, and a need for some administrative machinery separate and apart from the policy making group to stimulate appropriate action, in a timely manner, on the part of the ES '70 systems.

18. Network superintendents and members of the Executive Committee met for three days on July 11, 12, and 13 for an "ES '70 Conference: Management For Innovation." A copy of the agenda is included in reference 29. During this meeting E. F. Shelley and Company, Inc.:

    a. Assisted in the identification of items for the meeting agenda. Notices of the Executive Committee meeting, including the proposed agenda, were distributed to the appropriate people.

    b. Prepared and presented reports in connection with PERT and GANTT, including the interim communication system.

c. Started a preliminary investigation by legal counsel of the feasibility of ES '70 incorporating. The preliminary report was presented to the Executive Committee. The matter of the legality and feasibility of ES '70 incorporating was laid over to the September Executive Committee meeting. The matter of an interim communication system also was omitted for lack of time and was scheduled for discussion at the September 27 meeting. E. F. Shelley and Company, Inc., was asked to prepare a proposal for consideration of the Executive Committee at that time.

d. The names of Father Thaddeus O'Brien, Sister Mary Jean Partridge and Father Tierney Cahill were added to the mailing list. These people represent the Superintendent of Schools, Archdiocese of Chicago, and were added in view of the fact that membership of two parochial schools will be taken up by the Executive Committee on July 12.

e. Draft minutes of the July 12 Executive Committee meeting were completed and submitted to Dr. Ben Wallace for review prior to circulation to the membership. Reference 29.

19. A matrix to assist the Executive Committee to review projects under consideration for the Office of Education in connection with ES '70 was developed and submitted to the Chairman of the Executive Committee for review.

20. At the request of the Executive Committee a body of material related to "Education Products Information Exchange Institute" (EPIE), was distributed to all ES '70 superintendents for discussion at the Executive Committee meeting on September 27 and at the network meeting on November 21.

21. Material submitted by Father Thaddeus O'Brien to the Executive Committee supporting the request of the Catholic Archdiocese of Chicago for inclusion as a network system was distributed to all members of the Executive Committee at their request. At the request of the Executive Committee, Dr. Sidney High, U. S. Office of Education,is looking into the legality of parochial participation in ES '70 for submission to the Executive Committee on September 27. E. F. Shelley personnel participated

in discussions with Dr. High in this connection.

22. At the request of the Executive Committee Dr. Sidney High is developing a format for a short internship at the Office of Education for selected ES '70 coordinators. A discussion of this by contractor's staff with Dr. High centered around the desirability of using these internships to assist in identifying government sources of funding in agencies other than the Office of Education related to the goals and objectives of the ES '70 project.

23. The contractor was asked by the Executive Committee to prepare a job description and statement of function of ES '70 coordinators in draft form. This was submitted to the chairman of the coordinators and two district coordinators as well as the chairman of the Executive Committee and two superintendents of network systems for approval. Reference 37.

24. A meeting with Dr. Wallace and Mr. Spack was held at Mineola on August 19 to prepare for the September 27th meeting of the Executive Committee of ES '70 and the meeting of ES '70 coordinators at Bloomfield Hills, Michigan, October 7-10, 1968. Reference 38.

Contact was made in Chicago to arrange housing and other details in connection with the Executive Committee meeting scheduled for September 27. Material prepared and/or secured by E. F. Shelley and Company, Inc., and distributed for Executive Committee consideration at the September 27th meeting included:

a. The proposed agenda.

b. Draft of the format for Executive Committee review of projects proposed for funding.

c. Draft statement of functions of ES '70 coordinators. Reference 37.

d. EPIE (Educational Products Information Exchange Institute) descriptive materials.

e. Descriptive materials on Mt. Carmel High School and Loretto Academy, the Chicago Archdiocese applicant for membership in the ES '70 network. Reference 36.

f. A summary of legal opinion secured by E. F. Shelley and Company, Inc., concerning legal considerations related to the incorporation of ES '70. Reference 31.

g. The proposal for a student involvement study developed by the Office of Education.

25. Arrangements were completed for the September 27 meeting of the Executive Committee and the October 7-10 meeting of the ES '70 Coordinators. The company assisted in the physical arrangements for these meetings as well as in the preparation of the agendae for both meetings. Conferences were held with Dr. Wallace, Mr. Bushnell, and Mr. Spack in this connection.

26. Three representatives of E. F. Shelley and Company, Inc., attended the Bloomfield Hills meeting of ES '70 coordinators October 7-10, 1968. E. F. Shelley and Company, Inc., prepared the minutes for this meeting. References 38 and 42. A company representative presented the PERT report, reported on the ES '70 Information System by presenting a Progress Report and assisted with the individual conferences scheduled for the coordinators with the Office of Education representatives. In addition, the written description, "Statement of Functions of ES '70 Coordinators" prepared by E. F. Shelley and Company, Inc., and adopted by the Executive Committee was distributed and discussed.

27. For the ES '70 Executive Committee meeting in Chicago, October 25, 1968, the E. F. Shelley and Company, Inc., performed the following tasks:

a. Prepared the agenda and supporting materials. These included minutes of the July 12, and September 27 Executive Committee meetings; the report of Company counsel on incorporation; the "Secondary School Curriculum Improvement Program," PERTed by the Company; the Progress Report, ES '70 Information System, dated 9/26/68; and the material developed by the Company for Mr. Bushnell's report to the Research Advisory Committee at his request.

b. A report was made by Dr. High and Dr. Donahue delineating some of the work accomplished by the Company for ES '70. In this connection the material prepared by Dr. Otte was presented. The material prepared by the Company for use by Mr. Bushnell with the R.A.C. referred to above, proved helpful. A display of most of the reports, documents, research cards, etc., produced by the Company over the past year was available for review of Committee members.

c. Distributed a copy of "Management Information System Design" prepared by the Company for the Office of Economic Opportunity

R&D Division. This was provided to the Executive Committee members so that they would familiarize themselves with the kind of information system design being recommended for ES '70 which will have elements common with the system outlined in this document.

d. The company made the room reservations, conference room arrangements, etc., for this meeting. Time was spent in New York with the Chairman of the Executive Committee preparing for this meeting plus a number of phone and written exchanges.

28.. Preparation was begun for the ES '70 network meeting in Washington, D. C., on November 21, 1968, at the Washington Hilton Hotel. E. F. Shelley and Company, Inc., prepared the agenda, reference 64, and a number of background materials needed by the participants in this meeting. These included:

a. the preparation of incorporation papers by E. F. Shelley and Company, Inc., counsel. In this connection the Executive Committee requested the Company to have counsel present at this meeting.

b. Back copies of minutes were requested together with copies of a document prepared by the Chairman of the Executive Committee concerning the rationale for the employment of an executive secretary by the network and a job description of his functions completed and updated by the contractor. Reference 49.

c. Photostats of sections C & D of the new vocational education legislation were prepared.

d. The management information system design was finalized. It is detailed in "Charts and Tables Related to the Presentation on the ES '70 Management Information System" dated November 21, 1968. Reference 57.

29. The format for the visits of E. F. Shelley and Company, Inc., representatives to the member systems was developed in consultation with Office of Education personnel and the Chairman of the ES '70 Coordinators. Reference 33. Contractor's staff completed field visits to Mineola, Mamaroneck, Quincy, Harvard and Annapolis. References 50, 51, 52, 53, 54. Visits to project officers and others at the Office of Education, coupled with the field visits, are

producing in-put data for the management information system so that management analysis can be established on an on-going basis. In this connection the Title III contracts have been secured from the Office of Education for the ES '70 member systems and have been plugged into an updated PERT which was developed and presented at the network meeting on November 21, 1968.

30. The Executive Committee requested the updating of the base-line data with first priority on student personnel data, particularly as they relate to evaluation. The process of updating was undertaken as detailed in "Outline of Student Personnel Data Items to be Secured and Stored in the Central Data Bank for ES '70," dated November 21, 1968. Reference 56. This was presented at the network meeting on November 21, 1968. There were a number of policy decisions to be made by the network before this project could be moved forward. These items were put on the agenda for the next Executive Committee meeting on December 20, 1968. Additionally, a meeting was convened at Contractor's Washington office with Dr. Robert Morgan to discuss problems in securing Student Personnel data. Reference 58.

31. E. F. Shelley and Company, Inc., counsel prepared two documents in connection with incorporation.

This was in response to the request of the Executive Committee. They were presented at the network meeting on November 21, 1968. The documents were "Draft-Articles of Incorporation of ES '70" and Draft-By-Laws of ES '70." Contractor's counsel, Mr. Stanley Kolber, was present at the meeting and led the discussion and responded to questions.

32. The material prepared by the Chairman of the Executive Committee and E. F. Shelley and Company, Inc., relating to the employment of an executive secretary was distributed, discussed, and voted on at the network meeting on November 21. Details of the outcome were reported in the minutes of the meeting prepared by contractor. Reference 55.

33. E. F. Shelley and Company, Inc., staff completed visits to the Philadelphia ES '70 network school. Reference 73.

34. The coordinators were canvassed to determine their needs in connection with programming for the disadvantaged. The Company attempted to secure a list of program materials and their costs developed by the Job Corps for dissemination to coordinators to help with the problem of programming for the disadvantaged. These materials were secured and distributed to the network. They

included the Job Corps material secured through Project Interchange.

35. E. F. Shelley and Company, Inc., counsel prepared incorporation documents as requested by the Executive Committee at its December 20th meeting.

36. Abstracts of innovative programs were requested from the network coordinators to up-date this information for the network.

37. Coordinators were polled to secure lists of materials, sources and costs, that have been found helpful in staff development.

38. Responses were solicited by Contractor to the Office of Education request for information on the desirability of a coordinator's meeting to be held at Harvard regarding the Harvard Physics Project. These were collated and forwarded to Mr. Pruitt.

39. The agenda, supporting material and meeting arrangements for the January 31, 1969, Executive Committee meeting were developed.

40. The draft minutes of the December 20th meeting of the Executive Committee were prepared. Reference 60. All participants were reminded of follow-up details they agreed to accomplish.

41. The E. F. Shelley and Company, Inc., data bank was arranged to conform to some of the recommenda-

tions made at the November meeting of the network.

42. Four mailings to coordinators were completed of material recommended for distribution by the Office of Education.

43. Student personnel and staff data items were identified to assist with the Evaluation Program and a start was made on the identification of data items in other areas related to Evaluation.

44. The film-strip tape presentation was forwarded to all network schools. Reference 39.

45. The incorporation documents were completed by E. F. Shelley and Company, Inc., counsel, reference 66, and were approved by the Executive Committee at its January 31st meeting. Reference 67. E. F. Shelley and Company, Inc., counsel was asked to complete the incorporation legal procedures.

46. The contact work in connection with Dr. Mylecraines' workshops was completed.

47. Planning in connection with the San Antonio network meeting and the Houston meeting of coordinators was begun in January 1969.

48. Professional inputs and the clerical work needed for Mr. Ryan's presentation to the House Education and Labor Committee on February 3rd were completed. Reference 65.

49. During February 1969, E. F. Shelley and Company, Inc., staff met with:
    a. The executive committee.
    b. The chairman of the coordinators to plan the Houston meeting.
    c. Office of Education project officers.
    d. Mr. Bushnell, Dr. Boyan, Mr. Pruitt, et al.
    e. Mr. Pruitt several times.
    f. Mr. Thomas Dietz, the new coordinator from Willingboro.
    g. Dr. Wallace, Chairman of the Executive Committee.
    h. The coordinators at Houston.
    i. Mrs. Belin, contract officer.
    j. Lance Hodes, U. S. Office of Education, on the management R.F.P.
    k. George Gentry, U. S. Office of Education, on the staff development proposal.
    l. Bureau of Indian Affairs representatives.
50. The draft minutes of the February 16 Executive Committee meeting were prepared by contractor. Reference 68.
51. A memorandum to coordinators from Eliot Spack regarding Houston meeting was prepared and distributed. Reference 69.
52. A memorandum to coordinators from contractor

regarding PERT charts was disseminated. Reference 70.

53. The second edition of network innovative practices was prepared. Reference 84.

54. An instruction sheet and chart were prepared to assist coordinators in preparing for the Houston meeting.

55. A bibliography on staff development was completed.

56. The agendas for the Houston and San Antonio meetings were prepared, supporting materials developed, reference 71, and all logistical details completed.

57. E. F. Shelley and Company, Inc., counsel completed the incorporation of the network as a non-profit membership corporation in Washington, D. C. Reference 66.

58. The material for the funding proposal to be used in approaching Foundations was completed. It includes the introduction prepared by Dr. Rasmussen. Reference 72.

59. E. F. Shelley and Company, Inc., staff during March 1968, met with:

    a. The Board of Directors.
    b. The coordinators (Houston).
    c. The network (San Antonio).
    D. Office of Education personnel, Mr. Bushnell,

Mr. Pruitt, Miss Rubel, Miss Robbins, et al.

e. Dr. Ron Lippitt.

f. Dorothy Mial.

g. Dr. Wallace.

h. Mr. Eliot Spack.

i. Dr. Lewis - Parmer, Ohio, Public Schools.

j. Representatives of North American Rockwell on R.F.P. Modern Management.

Work accomplished by the contractor during this period included:

k. Arranged for National Training Lab material on summer workshops to be sent to coordinators.

l. Arranged for report on Achievement Motivation to be sent to coordinators.

m. Duplicated and sent to coordinators two mailings requested by Miss Rubel.

n. Site visits to San Mateo, Boulder, Duluth and the Chicago Archdiocese were completed. Reference 77.

o. Coordination details in connection with a network approach to the Office of Secretary of Health, Education and Welfare were accomplished.

p. Coordination details in connection with the Principal's Summer Workshop were accomplished.

q. Details and supporting materials for the coordinator's meeting at Houston , March 3-4-5 were handled. Minutes of their meeting and their report to the Board of Directors were prepared and distributed. Reference 82.

r. Details and supporting materials for the network meeting at San Antonio were handled.

s. Minutes of the San Antonio network meeting were prepared. Reference 76.

t. Districts were polled by letter for a commitment for financial support of the executive secretary.

u. E. F. Shelley and Company, Inc., counsel prepared legal documents for registering the logo of ES '70 as a trade mark. The legal process of registration was begun and completed by contractor's counsel.

v. Since Quincy, Massachusetts could not accommodate network needs for the meeting planned for June 26 and 27 an alternative district was secured, namely Willingboro, New Jersey, on a tentative basis. The item was included for decision on the agenda of the April 18th meeting of the Board of Directors.

w. Material was prepared for the Board of Directors meeting of April 18th to summarize the management needs of the network and the estimated costs thereof for consideration in foundation or other funding. Reference 83.

x. Materials were developed, related to evaluation, for presentation to the Board of Directors at its April 18th meeting.

y. Materials for use by Dr. Wallace in requesting extension of the E. F. Shelley and Company, Inc., contract were prepared.

60. During April 1968, E. F. Shelley and Company, Inc., staff met with:

a. The Board of Directors.

b. The Board of Directors and Dr. John Brandl.

c. The Commissioner's Advisory Committee on Network Schools.

d. The Chairman of coordinators to assist in planning the workshop for principals, summer of 1969.

e. Mr. Bushnell, Mr. Pruitt and representatives of the Bureau of Indian Affairs.

f. N.T.L. representatives to send out notice of their summer workshop to coordinators.

g. Project Officers Goebel, Gentry, Hodes.

h. Dr. Pace, Houston coordinator, on . Management Techniques proposal.

i. Mr. Carr of Columbia Scientific Instruments, Austin, Texas, on Management Techniques proposal.

j. Mr. Bushnell, Mr. Pruitt and Miss Rubel several times.

k. Dr. Wallace frequently for planning and strategy.

l. Mr. Ryan, Breathitt County coordinator to assist with Title III proposal and Ben Reeves, Assistant to Mr. Perkins.

m. A.I.R., Pittsburgh, inputs for handbook on educational innovations they are preparing.

Work accomplished during this period included:

n. Management needs of the network were analyzed and materials prepared for Board of Directors consideration. Reference 83.

o. A proposal for evaluative audit for ES '70 was prepared for Board of Directors consideration. Reference 85.

p. A tentative proposal for a team approach to the ES '70 executive secretary's function was distributed. Reference 86.

q. Agenda and arrangements for the April 18 Board of Directors' meeting were completed. Legal counsel prepared the items on incorporation included on the agenda. Minutes of that meeting were completed in draft form and appropriately distributed.

r. Summary of points made by Board of Directors with Dr. Brandl was prepared for Dr. Wallace. Reference 88.

s. Liaison was established with Bureau of Indian Affairs to secure base-line data on Santa Fe Indian School seeking admission to ES '70. Reference 89.

t. Agenda for the May 16 Board of Directors' meeting was prepared. Reference 90.

u. Completed details for coordinators-superintendents meeting at E. F. Shelley and Company, Inc., offices, May 14 and 15.

61. During May 1968, E. F. Shelley and Company, Inc., personnel met with:

a. Mr. Bushnell's and Mr. Pruitt's committee on objectives at the Company offices.

b. Dr. Wallace's planning committee at the Company offices.

c. The Philadelphia ES '70 School Community Conference sponsored by the West Philadelphia Corporation.

d. The ES '70 Board of Directors at the Company offices.

e. Mr. Bushnell and Mr. Pruitt several times.

f. Project officers: Richard Otte, George Gentry, Larry Bratten, Thomas Clemons, Duane Neilsen.

g. SDC representatives on staff development.

h. Mr. Stroebel and Mr. Nisos - Aerospace Education Foundation.

i. Dr. Lessinger's and Mr. Bushnell's Task Force on Education.

j. Representatives of the Bureau of Indian Affairs.

k. The ES '70 coordinators from Willingboro, Breathitt County, Mineola, Baltimore, Nova and Bloomfield Hills.

l. U. S. Naval Academy - Annapolis staff working on computer assisted instruction.

m. Visited Breathitt County with Mr. Pruitt in support of Title III proposal.

62. Minutes of Mr. Bushnell's and Mr. Pruitt's planning

group meeting, May 8 and 9 were prepared and distributed. Reference 93.

63. Minutes of Dr. Wallace's planning meeting, May 14, and 15, were prepared in letter form and distributed. Reference 115.

64. The agenda and supporting materials for the Board of Directors meeting of May 16 were prepared. Attached were copies of Ampex proposal, minutes of May 8-9 meeting, Ryan, Title III correspondence, base-line data for Institute of American Indian Arts, Santa Fe, the proposal for foundation funding. The draft minutes of the May 16th Board of Directors meeting were prepared and circulated.

65. Copy for discussion use at the June network meeting was prepared. Agenda development and preparation for the June network meeting was begun.

66. E. F. Shelley and Company, Inc., personnel during June, 1969, met with:

    a. Mr. Bushnell and Mr. Pruitt -- 11 meetings.
    b. Office of Education artist to develop transparencies for Mr. Bushnell's Willingboro presentation.
    c. Office of Education project officers Gentry, Hodes, and High.
    d. SDC staff representatives, Pruitt, Neilsen, and Gentry.

   e. The sub-committee of the ES '70 Board of Directors at New York City to plan the Willingboro meeting.

67. The work needed in connection with the annual ES '70, Inc., network meeting June 26 and 27, at Willingboro, was completed. This included:

   a. Notifying all network superintendents and coordinators in advance together with advance circulation of supporting materials for the discussions. Reference 102.
   b. Notifying 80 State Education Department representatives and providing them with supporting materials for the discussions.
   c. Notifying 23 miscellaneous interested people.
   d. Coordinating all physical arrangements including transportation, room arrangements, hotel accommodations, etc.
   e. Coordinating speakers and resource people for the meeting.
   f. Preparation and distribution of the agenda. Reference 103.
   g. Preparation and distribution of "Format

for Discussion Groups." Reference 102.

h. Writing and distribution of "Framework for Discussion."

i. Duplicating for blue folder inclusion:
    (1) ES '70 Report #9, "ES '70 Summary of Quarterly Reports, Spring, 1969." Reference 92.
    (2) "A Comparison of the Traditional High School with an ES '70 School." Reference 105.
    (3) "A Plan for ES '70", Bruce Tuckman. Reference 106.
    (4) Minutes of ES '70 Board of Directors Meeting of May 16, 1969. Reference 90.
    (5) Report of ES '70 Network Meeting, March 5-7, 1969. Reference 76.

j. Assembling and distributing 125 blue folders.

k. Four staff members of E. F. Shelley and Company, Inc., acted as recorders, and/or resource people and leaders in the discussion groups of June 26 and 27.

l. Acting as secretary at special meeting of newly elected Board of Directors, June 26.

   m. Meeting with nominating committee three times.

   n. Acting as secretary for the June 26 and 27 meeting.

68. Work was begun on minutes of meeting and report of network meeting at Willingboro, June 26 and 27. Reference 107.

69. During July, 1969 Contractor's staff met with:

   a. Mr. Daughtridge, Mr. Petersen, Mr. Pruitt, and Mr. Duffy.

   b. Mr. Daughtridge and Mr. Pruitt, Dr. Brett, et al.

   c. Mr. Pruitt - six meetings.

   d. Mr. Bushnell - two meetings.

   e. Other individuals in connection with ES '70 - sixteen meetings.

   f. U. S. Office of Education, Project Officers - three meetings.

   g. ES '70 coordinators - five meetings.

   h. Representatives of organizations asking for ES '70 consideration for proposals and/or cooperation - four meetings.

70. Planning assistance was provided to the directors of the Duluth and Willingboro workshops. Duplicated and distributed materials for Duluth workshop as follows:

a. 35 copies of ES '70 PERT.

b. 35 copies of ES '70 Report with goals and functions.

c. 35 copies of Articles of Incorporation and By-laws.

d. 35 copies of Coordinator's memo to the President of the Corporation,
35 copies of Dr. Wallace's letter to Mr. Bushnell,
35 copies of minutes of two Board of Directors meetings.

e. 35 copies abstract page of contracts:
9-0163 Student Participation in Decision Making,
9-0485 In-Service Education,
9-9011 Modern Management Techniques

f. 35 blue folders to accommodate the materials.

71 Prepared agenda for and made arrangements for Executive Committee meeting in Chicago, July 8 and 9, 1969. Attended meeting and wrote up material requested by Committee for the Board of Directors Meeting at Denver, July 31, and August 1, 1969. Reference 109.

72. Prepared agenda and made arrangements for Board of Directors Meeting, July 31, and August 1, 1969.

Provided supplementary materials for that meeting as follows:

   a. Preparation and duplication of "Progress Report, July, 1969, Secondary School Improvement Program." Reference 108.
   b. "Report of ES '70, Inc., Annual Meeting, Willingboro, New Jersey, June 26 and 27, 1969." Reference 107.
   c. Made financial report.

73. Met with Mr. Pruitt and Colonel Nisos and Mr. Jim Straubel of Aerospace Foundation regarding vocational research and its relevance to ES '70 network schools.

74. Contractor's staff met with ES '70 Board of Directors on September 19th, in Washington, D. C.

B. Program Management, Monitoring and Evaluation

Continuing assistance was provided to the Office of Education and the Network in the coordination and handling of the administrative program and management details of the ES '70 enterprise. Not enumerated in what follows is the work done in arranging such things as the physical details of meetings, etc., such as hotel rooms, travel arrangements, meeting rooms, duplication of materials, etc., that help to make for the success of any meeting, and in the aggregate amount to a considerable expenditure of staff time and effort.

1. The contractor's staff played a major role in structuring the two week network workshop at Bloomfield Hills, July 1967. (See section on School Network Implementation and Servicing.) Staff was on hand at Bloomfield Hills and provided on-site continuing advice and assistance during this period.
2. Contractor's staff evaluated the comments and suggestions of the member systems of the network in order to begin planning for the preparation of definitive PERT's and other supporting activities requested by local school districts participating in the Bloomfield Hills meeting.
3. During October, 1967, conferences were conducted

with the Chairman of the ES '70 Executive Committee relative to plans for the Executive Committee meeting scheduled for early December. In addition, tentative revisions in the master PERT were reviewed with the Executive Committee Chairman. Preliminary plans were made for the preparation of detailed Level II PERT for selected activities outlined on the master PERT. Preliminary plans were made for the preparation of information lists relative to staff and students in the ES '70 network.

4. Planning sessions were conducted relative to the preparation of an information system for ES '70. Preliminary lists were begun of technological items and other components for possible inclusion in a comprehensive school for the 70's.
5. Formal and informal meetings were held with Mr. Bushnell and members of his staff relative to the possible preparation of ESEA Title III applications by each of the members of the ES '70 system.
6. Background research regarding the materials necessary for the preparation of an information system was accomplished.
7. Baseline data questionnaires were prepared and received from 11 of the 17 participating districts and an

analysis of the contents of such questionnaires was initiated. Followup letters and telephone calls were made to those districts which had not submitted their questionnaires.

8. Initial findings based on information contained in the returned baseline data questionnaires were prepared for discussion by the ES '70 Executive Committee.

9. As a result of the review of the PERT charts submitted to the Executive Committee of the ES '70 program on November 19, 1967, the following steps were taken:
    a. Tentative revisions in the structure and organization aspects of the master PERT were begun.
    b. Structural changes in the Level II PERTS were initiated to bring about congruity between terminology and time sequencing with the suggested changes in the overall master PERT.
    c. A conference was scheduled for January 3, 4 and 5, in Washington, D. C., with Dr. Robert Morgan and members of the staff of the Division of Comprehensive and Vocational Education Research.

d. Arrangements were made to hold such a conference at the Gramercy Inn, Washington, D. C.

e. An in-depth review of the PERT revisions was carried out and further recommendations for modifications suggested.

f. A preliminary report on the base-line data on the 17 school districts of the ES '70 network was presented. This report indicated that there were still many missing pages of information from a number of the participating school districts. It was agreed that a further analysis of the base-line data would be made by E. F. Shelley and Company, Inc., as soon as possible after the completion of this analysis and the contractor was requested to provide the additional information needed.

g. The policy and procedural statements which were to serve as guidelines for the operation of ES '70 were reviewed. Several recommendations were made and additional policy statements suggested.

10. A conference was arranged by the Contractor, January, 1968, for the Office of Education to provide staff of the Division of Comprehensive

and Vocational Education Research with an opportunity to discuss the PERT program in detail.

Those in attendance were:

Mr. David Bushnell
Dr. Robert Morgan
Miss Roberta Rubel
Dr. Jack Morgan
Dr. Dwayne Nielsen
Dr. Alice Scates

representing the Office of Education.

Dr. John Blyth
Mrs. Lois Karasik
Dr. Edward A. Welling, Jr.

representing E. F. Shelley and Company, Inc.

The master PERT chart was reviewed activity by activity and line by line. Several recommendations were made regarding the organization of the activities represented on the PERT chart. Such recommended modifications were made by E. F. Shelley and Company, Inc., after this conference and reviewed by all concerned in the Division of Comprehensive and Vocational Education Research, Office of Education.

11. Preliminary systems analysis and design work was performed to develop the specifications and outline of an information system to supply the data, the analyses and the alerting reports required to meet the objectives of

the ES '70 program. Initial efforts were directed toward the establishment of a monitoring system, which would provide the Office of Education and the participating districts with the management information needed to gauge the progress of the overall program, the individual district programs, and the performance of the contractors.

12. As a result of the conference held on January 3rd and 4th, 1968, with personnel from the Office of Education, the following steps were taken:
    a. The major categories of the PERT were reorganized around the following four major headings:
        1. Staff Development
        2. Instructional Management and Career Guidance
        3. School Management
        4. Evaluation
    b. Parallel structural changes were made in the schematic PERT for individual school districts.
    c. The numeration system indicating events on the schematic network PERT and the schematic individual district

PERT were synchronized in order to provide a simplified identification system of events for local district coordinators.

d. Preliminary plans were made for the drafting of a suggested GANTT chart of selected ES '70 network operating activities. It was planned that this PERT would be structured so that time allocations to be shown on the GANTT chart could be readily referred to on the master PERT.

e. Preliminary planning for the development of a schematic network coordination PERT was initiated.

As each tentative revision was made in the master PERT these changes were reviewed with staff members in the Office of Education in order to assure close liaison and mutuality of effort. Final revisions were completed February 2, 1968, and the various charts were prepared for reproduction.

13. A presentation dealing with "Schematic PERT Schedules and Progress Monitoring for the ES '70 Program" was completed and printed. Reference 8.

Section I of this report entitled "Guidelines for the Design of an ES '70 Information Processing and Progress Monitoring System" detailed some of the specific questions which must be answered in order to design a meaningful information and progress monitoring system.

Section II dealt with "ES '70 Program Progress and Management Monitoring", and explained in detail the anticipated use of the following ES '70 charts:

a. Schematic PERT Chart of ES '70 Network Activities
b. The Schematic PERT Chart for Individual Districts
c. The expanded and initial Suggested GANTT Chart of Selected ES '70 Network Operating Activities
d. A Preliminary Schematic for Network Coordination

A detailed discussion of each of the charts was printed as well as the charts themselves and presented and discussed at the Atlanta meeting of the network by contractor's staff. During the meeting of the Curriculum Advisory Committee to the Division of Comprehensive and Vocational Education Research, contractor's staff served as resource people to the Office of Education in providing more detailed descriptions of the printed documents which were distributed to the Curriculum Advisory Committee. In addition, the next steps needed to implement the information system and a PERT schedule were described.

Subsequent to the Atlanta meeting tentative guideline questions, needing clarification and further definition in order to establish an effective information system for ES '70 were drafted.

14. At the request of the Office of Education contractor's staff served as resource people at the New Orleans conference convened by the Office of Education, March, 1968.
15. A preliminary listing of specific items to be included in the information system was prepared. A questionnaire was developed to secure information on data processing in use in the network schools.
16. The collation and tabulation of the base-line

data were completed and published in "Base Line Data Summary." Reference 21. Copies were distributed to the Office of Education and the network, as well as to a number of interested agencies and people.

17. A PERT report was prepared as a result of three days meeting with Dr. Robert Morgan, Dr. Jack Morgan and Miss Roberta Rubel. This report was presented to the Executive Committee at the July 12, 1968, meeting by Dr. Robert Morgan and others. The same report was made to all superintendents of the network attending the New York Institute of Technology meeting July 13, 1968.

18. Six copies of the book, Pfeiffer, John, New Look at Education, Systems Analysis in Our Schools and Colleges, Odyssey Press, New York City, 1968 were procured at the request of Dr. Morgan and delivered to the Office of Education.

19. A simplified PERT was developed for the use of Mr. Bushnell and Dr. Morgan in connection with some meetings they were leading.

20. A brief summary of innovative programs in ES '70 member systems was prepared for the August 8,

1968 meeting at E. F. Shelley and Company, Inc., attended by Mr. Bushnell, Dr. Morgan, Dr. Werthheimer, Dr. Mays, Dr. Neilsen and contractor's staff.

21. A staff member of the contractor met with the Curriculum Advisory Council in San Francisco, September, 1968, as a resource person.

22. An information system for ES '70 progress reporting was developed and distributed to the Executive Committee at their September 27, 1968, meeting. Reference 32. The Board of Directors accepted the report and one of its recommendations, namely, the preparation of a summary of quarterly reports from the coordinators. This was subsequently approved by the Office of Education and implemented by the contractor. On October 14, a meeting of four representatives of the contractor was held with Mr. Bushnell, Dr. High, and appropriate project officers at the Office of Education responsible for projects included in the Secondary School Curriculum Improvement Program. The purpose of the meeting was to lay the groundwork for the necessary detailed follow through on Project progress to begin to implement the in-depth management analysis essential to keep the

network and Office of Education informed on product emergence and the need for planning changes. Distributed to the network were copies of abstracts of all contracts presently funded in the Secondary School Curriculum Improvement Program. (Reference 40) Guidelines for contractor's staff visits to research agencies and network schools were developed. References 33and 34.

23. At the request of the Office of Education a contractor's staff member attended the Office of Education meeting of the U. S. Office of Education Advisory Committee on Personnel Development, December, 1968, at Nova University, reference 59.

24. A confidential presentation was made to Mr. Bushnell, Mr. Pruitt and Dr. Neilsen using the master PERT to alert them to the overall lack of progress in moving toward the ES '70 goals as originally PERT'ed. They requested alternative charts and diagrammatic presentations. These were developed by the contractor to include modifications desired by the Office of Education as they emerged as a consequence of numerous meetings and consultations with Office of Education personnel. This management chart

presentation was delivered to the Office of Education, March, 1969, and is in Mr. Pruitt's possession. The same presentation was made to the Executive Committee.

25. From December 1968 to March 1969, work was done on student personnel items to be stored in a central data bank for use by a contractor to be charged with developing a format for evaluation of ES '70. Work was stopped on this project by direction of the Office of Education when it became apparent Office of Education's budget could not accommodate the letting of an "Evaluation" contract to E.T.S. Reference 56.

26. At the request of Mr. William Ryan, coordinator at Breathitt County, Kentucky, who was testifying before the House Committee on Education and Labor, February 3, 1969, a contractor staff member showed the slide-tape presentation "ES '70 - Partnership for Learning," to that Committee.

27. At the request of the Office of Education, contractor's staff completed copy for a chapter to be included in a publication sponsored by N.T.L. The title of the chapter is "The Linking Agency: A New Force in Educational Management", reference 61.

28. As a component of the management information system a standard file system was developed and delivered to the Office of Education and the network systems. Reference 62.

29. Background material for Mr. Bushnell's use based on Dr. Boyan's questions of February 22, 1969, was completed and delivered. Reference 78.

    Forty copies of material requested for Dr. Boyan's use with the President's Science Advisory Committee were prepared and delivered. Reference 79.

30. Field visits were completed to:
    a. A.I.R., Palo Alto, Guidance Project
    b. D.A.V.I., Portland, Oregon
    c. Educational Policy Research Center, Stanford, California, re relevance of ES '70 processes to long range determinations of this group.
    d. California State Department of Education re implications of ES '70 for the State of California.
    e. ES '70 network systems - San Mateo, Boulder, Duluth, Chicago Archdiocese - reports prepared.
    f. Annual conference of the National

Commission for Support of the Public Schools.

g. Conference at Airlee House on Developing Leadership for Changing Organizations.

h. House Education and Labor Committee hearing on the rehabilitation and re-education of high school drop-outs.

i. Planning seminar on long-range planning for National Association of Independent Schools.

31. A proposal for Foundation Funding including a budget was written at the request of the Office of Education and the Board of Directors of ES '70 and sent out by Mr. Bushnell to selected foundations. Reference 114.

32. Arranged details for Office of Education sponsored meeting of consultants, Office of Education personnel, selected network superintendents and coordinators, and contractor's staff at the Company offices May 8 and 9, 1969.

33. A summary of network quarterly reports was completed and distributed. Reference 92.

34. A summary of the Task Force meeting of June 2, 1969, at the Office of Education was prepared at Mr. Bushnell's request. Reference 110.

35. At the request of the Office of Education a two hour presentation and discussion was held with Office of Education staff members, July, 1969, by Sister Brennan to brief them and discuss with them her impressions of ES '70, its direction, and her recommendations. This resulted in the paper, "Through a Black Box Dimly." Reference 96.

36. At the request of the Office of Education six task orders were prepared and delivered. Reference 97.

37. "Comprehensive Opportunities for Learning" a major paper for publication was prepared at Mr. Bushnell's request and delivered to him.

C. Research Program Coordination

1. PERT Charts

a. The contractor developed a preliminary PERT schedule of the entire ES '70 program. This PERT schedule was presented for review to the ES '70 executive committee which met in Mineola, New York on July 27 and 28, 1967. Copies of the PERT charts of the overall schedule and of the first sub-schedule, "Formulating Behavioral Objectives," were distributed at the meeting.

b. In September 1967, the revised ES '70 Level I PERT was prepared for presentation at the coordinator's workshop at Bloomfield Hills, Michigan. Reference 3.

c. The revised Level I master PERT was completed. Conferences were conducted with Dr. Otte of the Office of Education relative to procedural matters in the development of ES '70. During this same period, the U. S. Commissioner of Education, the Honorable Harold Howe, III, scheduled a November 20 meeting for the superintendents of all school systems participating in the ES '70 program, for the state commissioners, and for members of his staff who were working in ES '70 related areas. Because of this meeting, it was decided that the policy statements which were originally to be prepared by December 1 and the PERT revisions scheduled for the same date would be prepared in time for presentation to all members of the Executive Committee of ES '70 at an Executive Committee meeting which was scheduled for November 19. This shift in the time schedule necessitated intensive work in the above areas in order to meet the newly imposed deadlines.

d. The Contractor's staff completed Level II PERTs relative to ES '70 in the following areas: Administrative Reorganization, Instructional Staff Training, Assessment Counseling and Placement System, Plant Utilization Reorganization and Alternative Ways of Learning. These PERTs were reviewed and printed for distribution to the Executive Committee on November 19, 1967.

2. Research Cards and Research Reports

A fuller discussion of the development of the PERT charts is contained in the section entitled, "Program Management," of this report.

a. An annotated bibliography of research reports related to the various aspects of the ES '70 program was begun in February, 1968, with a set of 4 x 6 cards containing 42 summaries of ERIC research reports. Initially, the cards were divided into four major categories of activities corresponding to the four major categories shown on the schematic network PERT chart.

b. When the second set of research cards was completed and mailed to the participating districts, March, 1968, the following categories of activities were established as subsections of the research card file.

Staff Development

Teachers
Administrators
Guidance Personnel
Subprofessional Personnel

Instructional Management

Educational Objectives
Performance Objectives
Curriculum Development - Nonvocational
Curriculum Development - Vocational
Guidance
Individualized Instruction
Instructional Practices
Research

School Management

Administrative Procedures
Computer Facilities
Other Equipment
Plant Design and Facilities
Costs

Evaluation

Student Assessment
School Accreditation
Use of Data Processing in Evaluation
Student Certification
General Evaluation of Educational Process

Research Centers

c. A total of 540 research cards were mailed to the ES '70 school superintendents and coordinators during the period from February 1968 to July 1969. A complete set of research cards was delivered to Mr. Robert Pruitt in August 1969. Reference 113.

d. At the November 1968 ES '70 Network meeting it was decided that in early Spring, 1969, the contractor would begin a periodic information exchange under the heading of ES '70 Research Reports. Three of these reports have been completed: April, June, and October, 1969. Reference 99. The reports described the materials enclosed. These materials encompassed information gathered from visits to SSCIP contractors, Office of Education project officers, and from related research projects.

3. Research Project Linkage

The Contractor performed the service of monitoring the progress of research projects with a view to ES '70 needs and timing. This service entailed providing liaison with the Bureau of Research project officers and visiting the research contractors themselves. In addition, relevant activities outside of SSCIP were identified and brought to the attention of ES '70 schools and the Office of Education.

a. In September, 1968, conferences were held with Dr. Joseph P. Arnold and Dr. Edward T. Ferguson, Jr., at the Ohio State University Center for Vocational and Technical Education about securing material for the analysis of vocational education requirements for ES '70.

b. In October, procedures were set up for visits to Office of Education project officers. Reference 33. These procedures were intended to provide an exchange of information mutually beneficial to the ES '70 schools and the project officers.

c. A quantity of materials relevant to the use of ERIC was distributed to all member systems.

d. Continuing visits were made to Office of Education project officers. Reference 44.

e. In November, 1968, the Contractor began an enumeration of network school systems' staff members interested in participating in research funded by the Office of Education. The purpose of involving ES '70 school staff members in the relevant research was to establish a closer identification of the research to the ongoing school efforts and to establish a closer liaison between the ES '70 school systems and the directors of research projects. Reference 63.

Between November, 1968, and February, 1969, the Contractor received and collated lists of network school staff members who were interested in and available for work assignments in connection with ES '70 R&D projects. The final list was made up February 26, 1969. Reference 63.

f. In April, 1969, the contractor made an analysis of the status of SSCIP with a view to establishing work priorities. Reference 111.

g. In April, 1969, the Contractor forwarded to Mr. David S. Bushnell inquiries from schools and industry concerning the Modern Management Techniques Project. Reference 80. At the request of Mr. Hodes, the staff reviewed the proposal on Modern Management Techniques (May 27, 1969) and completed recommendations in regard to the project. Reference 98.

h. In August, 1969, the Contractor held meetings with representative's organizations asking for ES '70 consideration for proposals and/or cooperation.

i. The Contractor forwarded material (October, 1969) regarding the Bloomfield Hills curriculum development work and a list of ES '70 coordinators for the use of Dr. James Popham at U.C.L.A.

j. In October, 1969, the Contractor provided information to Professor Havelock, University of Michigan, regarding ES '70 similarities to his models.

D. External Communication

Assistance was provided by the contractor to the United States Office of Education in disseminating information about the ES '70 program.

Materials for the Newsletter were compiled and edited from many sources including visits to the ES '70 projects by contractor's staff. Preparation of written and graphic materials for educational conferences, professional journals and presentation to the House Committee on Education and Labor were completed with the assistance of the contractor's staff working with the Office of Education and appropriate staff of the network schools. Mailing lists were established. Audio-visual materials were prepared including a 12-minute sound film, and a 15-minute slide tape presentation. Formats were developed and completed for the ES '70 reports and the brochure entitled, "An Educational System for the Seventies." Contractor's staff met regularly with the Office of Education's staff providing assistance and advice in carrying out the above.

1. The Contractor assisted the Office of Education in the preparation of a comprehensive report which was delivered by Mr. David S. Bushnell regarding ES '70 at the Aerospace conference on September 12, 1967. Reference 43.

Twenty preliminary overhead projections which illustrated the major goals and information systems which are essential in achieving the objectives of ES '70 were prepared. Materials were prepared to assist Dr. Robert Morgan in his presentation regarding the drafting of behavioral objectives.

2. The staff of E. F. Shelley and Company, Inc., worked on the revision of the overhead projections for the Office of Education which were used in conjunction with future talks by Mr. David S. Bushnell regarding ES'70. Reference 15. Twenty sets of slides were prepared from the original overhead projections and distributed to all systems in the ES '70 network. The Level I master PERT of the ES '70 program was revised. Preliminary planning was begun for the drafting of policy statements for the operation of the primary network and the Executive Committee. Conferences were conducted formally and informally with members of Mr. Bushnell's staff relative to the preparation of a comprehensive packet of Dr. Morgan's paper regarding Behavioral Objectives, an explanation of the preliminary PERTs and copies of these PERTs. Such material was prepared for distribution to members of the Office of Education staff in Washington.

3. A listing of State directors of vocational training was prepared for distribution to all members of the ES '70 network. A tape containing Dr. Bright's speech which outlined the historical antecedents and educational purposes of ES '70 was received, and an initial typed copy of his remarks was transcribed. One hundred more copies of Mr. Bushnell's speech to the Aerospace Conference were reproduced and sent to his office for distribution.
4. An initial list of various activities funded by the Office of Education which relate to ES '70 was begun. Finally, in-depth research on the assessment, counseling and placement system was initiated.
5. The information lists initially prepared for inclusion in the ES '70 study were amplified.
6. ES '70 Report No. 4 was completed in draft form and prepared for reproduction. It was agreed by members of the Office of Education that this report would be distributed at the general meeting of the ES '70 district School Superintendents in Atlanta on February 16, 1968. ES '70 Report No. 4 was printed for distribution. Reference 18.
7. The initial paper dealing with "Some Elements of the ES '70 School" was completed and printed for distribution. Reference 16.

8. The Hon. Carl Marburger, State Commissioner of Education, New Jersey, was provided with 50 copies of the "Policies and Procedures for the ES '70 Program" and "Schematic PERT Schedules and Progress Monitoring for the ES '70 Program" for presentation to the Chief State School Officers meeting at the AASA convention on February 17, 1968, conducted in Atlantic City. Reference 17.

9. Assistance was provided to Mr. Bushnell, in preparing for his testimony before the House Committee on Education and Labor. Thirty documents were presented for distribution at this hearing conducted on February 21, 1968. Preparation was completed on volume work covering:

    a. Background and Rationale of ES '70. Reference 19.

    b. Elements of ES '70 School. Reference 19.

    c. Policies - Procedures - Schedules. Reference 19.

10. In order to assist the U. S. Office of Education in disseminating information regarding ES '70 to those interested in the program, and in accordance with the wishes expressed by members of the Office of Education administrative staff, preliminary plans were completed for the establishment of a mailing list according to the following categories:

Group I: Superintendents of schools in the participating local districts.

Group II: Coordinators of the ES '70 program in the 17 participating districts.

Group III: The Office of Education's Division of Comprehensive and Vocational Research, Curriculum Advisory Committee.

Group IV: The Office of Education's Division of Comprehensive and Vocational Education Research -- Research Advisory Committee.

Group V: Participants and those invited to attend the New Orleans conference.

Group VI: Chief State School Officers of the 14 states participating in the ES '70 program.

Group VII: Chief State School Officers of the remaining 36 states and the chief school officers of the United States' territories outside the United States.

Group VIII: A comprehensive list of those professional, industrial and education association people, among others, who have written either to the U. S. Office of Education, to one of the participating school districts or to

E. F. Shelley and Company, Inc., requesting information.

11. An addressograph system for mailing materials was initiated and addressograph plates completed for all individuals covered in Group I through VIII.

    ES '70 Progress Report No. 5 was completed. Reference 20.

12. To implement the information system for ES '70 and in response to a need expressed by administrators in the ES '70 network preliminary planning was initiated and completed for the publication of a newsletter on the ES '70 program to:
    a. be published 10 times a year, September through June.
    b. report significant activities in school districts participating in ES '70.
    c. request proposals anticipated by the Division of Comprehensive and Vocational Education Research of the U. S. Office of Education and prepare summaries of contracts awarded by this same division.

13. Plans for the writing, duplicating and issuance of a tentative, definitive statement defining the ES '70 program were completed.
    a. The Contractor prepared copy for the proposed descriptive booklet, "An Educational System for the Seventies."

Requests for modifications were accumulated from the network superintendents, coordinators, and Office of Education staff, etc. The final copy was prepared and the booklet "An Educational System for the Seventies" was published for wide distribution. Reference 23.

14. At the request of the ES '70 executive committee and the U. S. Office of Education, an audio-visual presentation providing an overview of the ES '70 program was planned and completed. This was a 12-minute sound film entitled "An Educational System for the 70's." One significant feature of this presentation was the fact that much of the visual material presented was derived from the U. S. Office of Education, the National Education Association and the 17 districts and 14 state departments participating in the ES '70 program.
15. ES '70 Progress Report No. 5 was prepared and mailed to ES '70 participants. Reference 20.
16. Coordinators submitted to E. F. Shelley and Company, Inc., lists of questions regarding ES '70 which had been raised either by members of the Board of Education, members of the professional staff or administrators in their respective school districts. These questions were then arranged according to categories and distributed to appropriate personnel in the U. S. Office of Education to secure

responses. A question and answer booklet which was distributed at the general ES '70 network meeting in San Mateo, California on May 23 and 24, 1968 was the result. Reference 22.

17. A preliminary layout design for the newsletter was drafted. The first issue of the newsletter was distributed May 21, 1968. Reference 20A.

18. A final draft of the booklet entitled, "An Education System for the Seventies", including a major essay describing ES '70, a supplement enumerating innovative practices currently in operation in ES '70 schools and some for schools other than ES '70 and a second supplement covering organization, information sharing system, etc., was distributed and reviewed by the group at San Mateo. The group recommended some changes which were incorporated in the final draft which was submitted at the meeting of the superintendents for adoption. Reference 23.

19. A 12-minute, 16 mm color sound-film entitled "An Educational System for the 70's" was written, photographed and produced and was presented for discussion and criticism at the San Mateo meeting.

20. Discussions were held with Mr. Bushnell about the sound-film. Modifications proposed were presented at the Executive Committee meeting on July 12, 1968. Reference 29.

    a. There was a discussion of the sound film by the Executive Board at the July 12, meeting and some of the modifications proposed in the film were considered. The practicalities of revising a film appeared difficult and since there was no unanimity of opinion on the part of the members of the Executive Committee accommodation of all viewpoints was not possible. Reference 29.

    b. At the request of the Executive Committee students who attended the New Orleans Conference were put on the mailing list to receive the newsletter and information in connection with the study for student participation in the decision making process, the format for which was developed by Miss Roberta Rubel. Her material was presented to the Executive Committee on July 12. Reference 29.

21. "ES '70 News", Volume 1, Number 3, September, 1968 was prepared and distributed. Reference 35.

22. The ES '70 film was loaned to the Aerospace Education Foundation and two school districts.

23. A script and visuals for a tape presentation descriptive of ES '70 were prepared at the request of the Executive Committee and the Office of Education. The script was reviewed by appropriate Office of Education personnel. Reference 39.

24. The ES '70 News No. 4 was prepared and distributed. Reference 41.

25. The contractor completed a slide-tape presentation, "ES '70 Partnership for Learning." The reaction of the network participants at the November 21 meeting was uniformly good. Procedures were worked out to convert it to a film-strip tape presentation so that each of the member school systems could own a copy. Reference 39.

26. "An Educational System for the Seventies" completed by the Company was distributed at the network meeting on November 21. Reaction to this publication was good. Reference 46.

27. ES '70 News, Volume 1, Number 5, November 1968, was prepared and distributed. Reference 47.

28. In response to a request by the network through the Executive Committee, the Contractor prepared a single sheet, special edition of ES '70 News. It described in succinct form what ES '70 is and how it is organized. These were distributed. Reference 48.

29. Additional State Education Department representatives were added to the mailing lists as a result of contacts made by coodinators who felt there were operational people below the level of Chief State School Officer who needed to be kept up-to-date. The mailing lists were adjusted accordingly.

30. The film strip-tape presentation developed from the slide-tape presentation shown at the November network meeting was made available for distribution to the network.

31. The following newsletters and reports were distributed:

    a. ES '70 News Number 7 was prepared and distributed. Reference 74.

    b. Special ES '70 Report unnumbered, prepared and distributed. Reference 76.

    c. Volume I, Number 8, of ES '70 News was published and distributed. Reference 75.

d. Volume I, Number 9, of ES '70 News was prepared and distributed. Reference 100.

e. Volume II, Number 10, of ES '70 News was written, edited, published and distributed. Reference 101.

f. Copy for Task Force report requested by Mr. Bushnell was completed. Reference 110.

g. Revisions of pamphlet "An Educational System for the Seventies" was prepared and distributed. Reference 46.

32. Editing, printing and distribution of ES '70 News, Volume II, Number 11, September 1969 was completed. Reference 112. Completed a copy of the article "Through a Black Box Dimly" for ES '70 News. This was an outgrowth of Sister Brennan's meeting with Mr. Pruitt's staff in July 1969. Reference 96.

33. ES '70 News, Volume II, Number 12, was published and distributed. Reference 116.

34. ES '70 News, Volume II, Number 13, was published and distributed. Reference 117.

35. Over the period of the contract all correspondence and visitors to the Office of the contractor were accommodated.

III. MANAGEMENT AND PROGRAM RECOMMENDATIONS

The foregoing section delineates in some detail tasks accomplished by the contractor in completing his responsibilities as delineated in the scope of work and supplements. What remains to be pointed up is an overview of recommendations made by the contractor from time to time. It must be kept in mind that when the network was in process of development the Office of Education indicated to the participating districts a project of the scope and magnitude of ES '70 would require an expenditure of approximately $350,000,000.00 over a five-year period. The Office of Education anticipated funding of $35,000,000 as its contribution over that five-year period. The Office of Education money, it was thought, would make it possible to accomplish the research needed and some of the demonstration necessary to move the network forward along the four principal axes originally PERTed, namely, - Staff Development, Instructional Practices and Guidance, School Management, and Evaluation. The activities in each of these four areas were carefully planned, sequenced and coordinated into a modern systems approach and provided to the responsible Office of Education officials as well as to all network participants. A report on ES '70 operations of E. F. Shelley and Company, Inc., prepared by the Office of Education project officer, Dr. Richard B. Otte, follows.

It summarizes from his vantage point, as of October 24, 1968, the services being provided by the contractor. The report was made to the Executive Committee of ES '70.

Report on ES-70 Operations
of
E. F. Shelley and Co.

Prepared for ES-70 Executive Committee Meeting
by
Dr. Richard B. Otte
October 24, 1968

As part of its management assistance service, E. F. Shelley and Company, Inc., is coordinating the phasing and performance time schedules of ES'70 related contracts and grants including more than 29 projects totaling 4.5 million in FY 1969.

The E. F. Shelley and Company has the responsibility of providing assistance to the U.S. Office of Education in the management of this largescale experimental research and development program designed to produce and evaluate a new comprehensive secondary school curriculum.

Their management assistance is being provided to the U.S.O.E. in the preparation, organization and conduct of the ES'70 curriculum research and development programs, with particular attention to system planning, pilot school coordination, program development and evaluation, cost effectiveness, industrial contracting, schedule monitoring, communications and information dissemination, and program reporting.

More specifically, the E. F. Shelley Company is assisting the U.S. Office of Education in constructing the overall system development plan and detailed operating plan for the proposed research and development program; developing criteria for the selection of pilot schools and other participating organizations; coordinating program development and curriculum implementation among the various schools; establishing measurable criteria which could be used to determine whether or not the program objectives have been met; enlisting the services of private and industrial contractors in the conduct of the research and development programs; establishing checkpoints and procedures for monitoring the progress of contractors involved, against the criteria established for each contractor; establishing suitable cost-effectiveness programs; establishing of procedures for information interchange among participants in the program; and finally preparing periodic summary reports of the progress of the ES'70 program.

E. F. Shelley and Company are facilitating the interfacing of nations, state, local and project staffs. This is being accomplished primarily through an information system, which is undergoing continuous revision. PERT and GANIT charts at the network level as well as the local level have been developed. These chart the specific developmental steps and events on a definite time schedule needed to bring the ES'70 concept to fruition.

At the present time the ES'70 Executive Committee is an improtant resource for interfacing, particularly in the area of policy determination. E. F. Shelley and Company assists in the structuring of the agendae and the arrangements for the meetings of the Executive Committee.

E. F. Shelley and Company representatives are working closely with OE project officers, project directors, and the network school systems.

Information devices are presently being used by E. F. Shelley and Company to disseminate research finding of the ES'70 program.

Some of the information devices are for input (e.g., public announcements by HEW and USOE, quarterly reports by ES'70 schools, reports from ERIC, etc.) Some of the information devices are utilized for output (e.g., reports issued periodically by E. F. Shelley and Company, ES'70 NEWS, etc; reports prepared to meet special information needs -- Preliminary Base-Line Data Report of ES'70, Base-Line Statistical Summary, etc.) The offices of E. F. Shelley and Company, Inc., house a permanent central storage facility which serves as a source of data retrieval and a generation point for output information. In addition, E. F. Shelley and Company undertakes additional supportive activities as requested or as the need is identified.

Some of the contractor's management recommendations follow: Not all were accepted and acted upon.

A. During the summer of 1968, the Executive Committee was advised to plan on monthly meetings because of the volume of material which needed its attention. Accomplished.

B. Clarify the role of ES '70 member systems. Accomplished through the winter of 1968 - 1969 and finalized at the network meeting at Willingboro, New Jersey, June, 1969.

C. Include the chairman of the coordinators as a non-voting member of the Executive Committee. Accomplished.

D. Incorporate the network as a not-for-profit corporation. Accomplished.

E. Develop details for student and staff personnel data for evaluation. Proposals submitted but not implemented pending coordination with a prospective contract for evaluation.

F. Develop an inter-district teacher exchange. Not accomplished.

G. Develop criteria for establishment of secondary network. Not accomplished.

H. Consider admission of a system from the private sector. Consider the admission of an Indian School. Accomplished.

I. Consider the admission of a school for the handicapped. Now in process.

J. Consider the establishment of a high level business advisory group for ES '70. Not accomplished.

K. Consider the establishment of a high level advisory group for ES '70 to include representation from National Congress of Parents and Teachers, N.A.A.C.P., Urban League, etc. Not accomplished.

L. Establish liaison with N.E.A. and A.F.T. Not Accomplished.

M. Establish closer liaison with appropriate bureaus and divisions at the Office of Education, particularly the Division of Vocational and Technical Education. Partially accomplished.

N. Include the chairman of the ES '70 principal's group as an ex-officio member of the Board of Directors. Accomplished.

O. Establish a four member executive committee of the Board of Directors. Accomplished.

As a result of financial limitations beyond the control of the Office of Education and the network member systems individually and collectively, as well as philosophical redirection of the project, the contractor made recommendations as follows:

A. The original, finalized plan as PERT charted had to be drastically revised. This was accomplished in three steps:

1. A management chart was developed and presented to the Office of Education, December, 1968, and January, 1969, graphically demonstrating the hiatus between the original plan as charted on the PERT and the condition of development existing December, 1968.
2. The same presentation was made to the executive committee at its January meeting.
3. A similar presentation was made to the coordinators at their Houston meeting in March.

The recommendations made by the contractor are well summarized in the communication dated March 5 from the coordinators to the Chairman of the Executive Committee and subsequently forwarded by him with an endorsing letter to the Office of Education. The recommendations follow:

1. Instructional practices:

   The development of performance objectives in all subject areas, including vocational, is critical and urgent. To accomplish this expeditiously, we propose:

   a. Gathering of performance objectives from wherever they are now available.

   b. A simple evaluation of them to determine their value to ES '70.

c. A dissemination of those thought to be appropriate to all network systems.

d. An identification of those areas for which nothing has been developed.

e. A process to secure performance objectives where there is a void.

Note: The implication of the foregoing is that the Office of Education needs to reconsider its allocation of its limited funds as presently committed and its plans for future commitment.

2. Staff development:

Two programs are needed at once:

a. A program to train trainers of staff who will develop individually programmed instructional units of the organic curriculum.

b. A program to train trainers of local staff who will implement the units in "A" above.

Note: The principal and/or the appropriate instructional leader of each ES '70 high school should be included in this program (2).

3. Evaluation:

Coordinators are cognizant of the intention of the Office of Education to fund E.T.S. for the purpose of developing a plan of evaluation for ES '70. It is urgent that as quickly as possible agreement be reached and processes implemented to secure and store appropriate data in two areas:

   a. Student personnel

   b. Staff personnel

4. School management:

   a. A study of the state of the art, including costs in computer utilization for:

      (1) Instruction.

      (2) Student and staff personnel records.

      (3) Business functions.

   b. Implementation of the School Management Office of Education Financed Project.

5. Corporation concerns:

   a. There is an urgent need for the establishment of appropriate on-going liaison with:

      (1) All agencies and arms of the federal government which are, or should be, interested in and supportive of ES '70, e.g., Congress, the Secretary of H.E.W., the Commissioner of Education, et al.

      (2) National professional organizations, e.g., N.E.A., A.F.T.

      (3) Regional accrediting associations.

      (4) Appropriate business and lay organizations, e.g., N.A.M., A.M.A., National Congress of Parents and Teachers, et al.

b. To maintain the integrity of a true federal-state-local partnership, we urge a more concerted effort to involve the 15 State Departments of Education who are represented in the network.

Much of the foregoing remains unaccomplished.

B. A further effort was made by the contractor, March, 1969, to assist the Office of Education and the Board of Directors to come to grips with their management and programmatic problems. The recommendations made by the contractor are well summarized in the memorandum submitted to the Board of Directors dated March 27, 1969, which follows. Many of these recommendations remain unaccomplished.

March 27, 1969

"The management needs of ES '70 at this point have to be identified in the light of two basic considerations:

The present status of the development of the components of ES '70 and what needs doing to achieve the objectives and goals of the enterprise.

The incorporation of the network and its anticipated employment of an executive secretary.

I. The present status of the development of the components of ES '70 and what needs doing to achieve the objectives and goals of the enterprise.

A. Staff Development

In addition to a number of local, on-going efforts two workshops for network staff were conducted during the summer of 1968. Two more are anticipated in the summer of 1969, (1) Summer Institute for ES '70 Principals, (2) Summer Institute for ES '70 Curriculum Leaders. There probably will be a continuing need for network summer workshops for the next few years to ready local staffs as ES '70 components are developed and available for implementation and validation.

The management task here is to maintain close enough contact with coordinators to identify their district needs, draw them to the attention of appropriate Office of Education people or others and try to insure funding for, and the establishment of, appropriate workshops.

A second staff development need concerns coordinators and network superintendents. The needs of these groups can be identified only on a spot basis as the ES '70 effort gains momentum. Their needs can be accommodated probably within the present framework of coordinators' and network meetings.

The management task here is to maintain close enough contact with both groups and with the internal problems of the network to identify their needs and insure the inclusion of appropriate in-service sessions at their meetings.

Federal contracts in the area of staff development should be monitored. The progress being made and products resulting should be communicated to the coordinators for use in their schools as appropriate.

One contract, Development of Programmed Instruction for Teacher Training in Instructional Technology, has been completed and the materials produced communicated to the coordinators.

A second, Analysis of Instructional Management Role of the Teacher in the Classroom of the Future, is presently on-going.

A third area that will require similar management is in relation to sub-professionals and paraprofessionals.

B. Individualized Learning Environment Development (Instructional Materials and Practices and Guidance)

The management needs in this area are twofold:

1. Monitoring projects now funded and those funded in the future and informing the network of progress and results of these projects. This involves regular contacts with responsible Office of Education project officers and project directors in the field. As of this writing there are 17 or 18 contracts in this area.

2. Developing and implementing a plan complementary to the Office of Education effort to secure quickly the performance objectives in all subject areas including vocational clusters, channeling them to Rutgers and U.C.L.A. for cross-indexing and synthesizing and then to the network systems and the St. Louis Regional Lab for the development of instructional modules appropriate to the individual needs of the network systems. Included in this plan should be the identification of performance objectives developed wherever in the country and a simple evaluation of them to determine whether or not they should be disseminated to some or all of the network systems.

   At the present time Office of Education has let, or intends to fund, projects in three, possibly four of the 15 traditional high school subject areas. In the vocational area one contract has been let although there are 33 (more or less) vocational cluster areas depending on whose classification is used. This number could change as a consequence of the Arnold, Ferguson Ohio State Project.

The area of special education, particularly in developing more and better vocational training opportunities for the handicapped at the secondary level, is receiving scant attention. A plan needs to be developed and implemented to tie in the network systems with the vocational rehabilitation centers in their locales and to arrange more work-study opportunities for the handicapped in conjunction with business and industry.

A state of the art study and dissemination of the results to the network is needed to determine practical uses of computers, automatic data processing and information retrieval systems as applied in guidance.

C. Environments for Learning - Organization and Administration

The management task here is to monitor contracts already funded or about to be funded and dissemination of progress and results to the network. There are, or will be, three or four contracts during the current calendar year.

D. Evaluation

There are three major efforts that need to be planned and implemented:

1. Careful, statistically reliable measurement to ascertain the effects of specific educational interventions district by district.
2. Careful, statistically reliable measurement to determine effectiveness of the ES '70 total enterprise.
3. A plan to secure the cooperation of the appropriate state and regional accrediting agencies in altering their present accreditation processes to accommodate ES '70.

At this time one relatively small contract is anticipated with Educational Testing Service to begin the design of an evaluation program.

E. General Management Needs

Implicit in all of the foregoing is the need for an organization with the capability of designing and implementing plans and processes stipulated or implied in the enumeration of needs above. Immediate needs for example, include the design and implementation of a computer compatible system to secure and store student and staff data for possible evaluative use. A second need is for a system to secure, duplicate and disseminate as appropriate, materials developed by the network systems, particularly performance objectives, instructional modules and instructional contracts. A third need is for a system to perform the same service for securing, duplicating and disseminating, as appropriate, the same kind of materials developed in school systems, and agencies outside the network. A fourth need is for processes and procedures to study cost-effectiveness in the four major areas of activity, i.e., staff development, instructional materials and practices, organization and administration and evaluation. A fifth need is for the continuation, refinement and expansion, as appropriate, of the present management information system. Other pressing needs are enumerated in the statement of functions of the executive secretary. Reference 49.

II. Incorporation of the Network and Employment of an Executive Secretary

Now that the network is a corporate entity and will be employing an executive secretary a choice has to be made as to which of two routes to go:

A. Continue the present loose, non-directive effort to achieve the ES '70 goals with the inadequate funding coming largely from one division of the Office of Education. This would mean funding the executive secretary's office for about $65,000 annually for him to perform the functions as described in the attached. The E. F. Shelley and Company, Inc., would perform the functions as enumerated in the attached and would require funding in the amount of $380,000 annually. Note: If this is the decision, both of these amounts would be included in the proposal for foundation funding.

B. Request Health, Education and Welfare to fund the ES '70 Corporation in an amount of $25,000,000 to $50,000,000 annually to complete the ES '70 goals and objectives as quickly as possible. The purpose would be to demonstrate and test already researched and developed educational techniques in readily replicable ways and to disseminate the results. New approaches would be designed as needed. The network would need to recognize the desirability of variable approaches and the necessity for developing precise measurement and evaluation devices. Further, some modification of the present network might have to be made, e.g., the inclusion of elementary schools; the rapid development of a secondary network, the inclusion of an Indian school.

To accomplish this alternative, if funded, would require little in the way of adjusted funding for the executive secretary who would become the chief administrative officer of the enterprise. It would require a major adjustment of the E. F. Shelley and Company, Inc., contract since the Company would, in essence, be the planning and administrative arm of the executive secretary and the board of directors. The amount probably should be a percentage of the total funding normally allotted for planning and administration. It is thought a reasonable figure would be 10 percent. The Company would provide the services as delineated in all of the foregoing and would be responsible to the executive secretary and the board of directors.

The advantage of this approach lies in the fact that a viable, corporate network entity with proper geographical distribution and representative of every educational problem facing the nation, except the Indian educational problem, but including the disadvantaged, bi-lingual, handicapped, etc., already exists and is well underway. With modest modification, proper management and reasonable funding two or more years could be saved in achieving the basic objective of a major improvement in the quality of American education.

A further advantage lies in the fact that the ES '70 federal, state, local partnership, functioning as a non-profit corporate entity, relieves the government of the necessity for major reorganization of the Office of Education, the danger of being accused of developing a national curriculum and the implication that the Federal government is exceeding its traditional role by excessive supervision and direct management. In short, such an enterprise gets the desired job done with all of the advantages of competent management, direction and evaluation and none of the disadvantages of Federal control and operation. All that would be needed to secure the interests of the Federal government would be the centralizing of the Federal responsibility in the Commissioner's office to whom the board of directors would report periodically.

Respectfully submitted,

George T. Donahue

GTD/re

IV. SUMMARY

A. What Appears to have Happened . . .

The chronological history of the ES '70 project --the early promises, the changes in support, direction, etc.,--are well known. The focus here is not on the project itself as much as its consequences--what has been happening because of ES '70 and why.

. . . In the Local Educational Agency . . .

If one looks at the changes that have occurred to varying degrees in the schools associated with the ES '70 project and attempts to conjecture as to the basic causes and motivations behind them, the first common factor identified would be that of a changed view of the educational process. In each case some event seemed to have served to spark a new awareness of the differences between the institution of education as a facilitator of teaching and the institution as a facilitator of learning. Most frequently the experience of having to write instructional objectives in terms of student performance had served as this catalytic spark. Personnel in their various jobs began to ask different questions as to their roles and contributions to the learning of their students. It appears to be this "different" question--one which relates things to what happens to the student--which is the vital first step to any process of change.

A second force which seems to have contributed to meaningful change appears to be the provision of a local ES '70 coordinator and staff. As an internal agent, in most cases without regular assigned instructional duties, he could serve as what has been termed "a linking agent," a "Vice-President in charge of heresy," --carrying ideas and building relationships between people which would facilitate cooperative efforts toward common goals. Moreover, he could assist the on-line practitioner in the definition of these goals in terms which had meaning and relevance to the local situation, and from this common perception of goals and problems, he could more appropriately indicate, and frequently provide, relevant ideas, materials, procedures, etc., from research.

A third, and related, motivational element seems to have been the value of having meaningful objectives, i.e., objectives to which each participant in the process could continually relate his role and contribution. This form of internal feedback seems to have provided the personal reward and satisfaction vital to any human enterprise.

. . . In Educational Research . . .

In addition to the above three influences on the the operational processes of the schools there appear to have been elements of the ES '70 project which have contributed to the process of managing research and its developmental applications. There is a common frustration that is found in most of those who are doing research and development with the "new" concepts and means of education. They recognize that the "piece" with which they are dealing will have little chance to make a significant difference unless other correlated changes can be made in the school environment. It appears that the links which the ES '70 project made possible permitted many of the research contractors to view their contribution within a broader framework of correlated research and development; facilitated an exchange of immediate information between research organizations working in related areas; and provided continuing "reality" testing sites for concepts and materials.

. . . In the Development of a "Process" of Change . . .

Two final observations about what appears to have been happening in the "black box" from the point of view of process management: first, the provision in the original ES '70 design for the system management to be in the hands of a specialized management agency, separated from the self-interests of the diverse partnership elements, seems to have made it possible, when conditions surrounding the project began to change, to maintain an objective "fix" on project ends while facilitating a developmental view of project means.

In this way it was possible to perceive alternative courses to objectives, which could remain constant, thus avoiding the common pitfall of experimental projects which, under the reality of changing conditions, attempt to maintain allegiance to "means" rather than "ends."

Secondly, the opportunities provided for those who determined project direction to have continuing confrontation between the immediate needs of local school operation and the longer-range requirements of national educational planning and research, made it possible to proceed in more realistic directions that represented a synthesis of both views. This continuing interface seems to have provided the basis for what potentially could be the most unique and important aspect of ES '70. In this view, ES '70 might, in reality, not be considered an R&D project, but rather, R&C--that is, research and its consequences. Innovations traditionally have been rejected by education not because of their own validity, but rather because of their consequences on the educational environment, i.e., the changes in roles, scheduling, space allocation, etc., which they would necessitate. By treating university research and local educational agency operation as dual, interactive development paths, it seems that it may be possible to avoid dealing with the consequences of innovative research in a fragmented one-at-a-time fashion. This interactive tie in ES '70 between continuing inquiry and the realities of school operation may be a necessary component of institutional self-renewal.

B. What Appear to be the Consequences of ES '70 . . .

A determination of the significance of the efforts which have gone into ES '70 is dependent upon which agency is making the judgment.

1. For national educational leadership, the human-systems processes applied to the ES '70 project seem to offer a way to make concrete the total problem of institutional change so that necessary partial changes can be perceived in a comprehensive and realistic framework.
2. For educational research agencies, the ES '70 efforts offer an indication of how diverse research efforts dealing with the elements of larger concepts can be interactively linked -- (a) to increase mutual effectiveness, (b) to increase the cumulativeness of the separate research, and (c) to bridge the gap between research and its consequences.
3. The less obvious consequences of ES '70 for the local and state educational agencies may in the long run be the most significant. These would

include, for instance, the provision of access to problem-related information sources. Also, local agencies can understand better their own problems when they have an opportunity to view meaningfully, and deal cooperatively with, the concerns of others. Additionally, the collaborative agreement of other educational leaders is a vital requirement if an administrator is to maintain local support for new ideas--ideas which most frequently have perceived, but not demonstrated, value.

The contractor's contribution in helping to achieve the foregoing is attested to by some of the correspondence received during the two year period. Appendix B.

APPENDIX A

Scope of Work and Supplement

146.

Scope of Work

under Contract #OEC 1-7-071037-3596

dated May 5, 1967

Systems Management Assistance

to the

U.S. OFFICE OF EDUCATION

in the development of a

New Comprehensive Secondary School Curriculum

THE PROBLEM

It is increasingly evident that the American goal of universal education for all American youth is not being met. Although substantially the entire population up to the age of 16 is now attending public instruction, it is clear that at the secondary school level a significant number of students leave school without achieving the stated goals of the program.

For a considerable number of students, the traditional secondary curriculum has been largely college preparatory. For those students the present high school structure provides a basis for performance at the college level. For a somewhat smaller number enrolled in traditional vocational schools operating under the existing Federal legislation, secondary school provides specific occupational preparation as well as training for good citizenship. A substantial number of American high school youth fall between these two categories. These are young people who, in the foreseeable future, will not be candidates for a collegiate institution. And they are young people who, for one reason or another, have not entered into a program designed to give them occupational proficiency at graduation.

Typically, an American community provides for its secondary school people three curricula: the first is college preparatory, the second is the vocational curriculum, and the third is a general curriculum. There is growing awareness of the fact that the vocational and general curricula fail to provide an education which is adequate to the economic requirements of the student and relevant to the world in which he will live. It becomes increasingly clear that what is urgently required is the creation of a new comprehensive secondary school curriculum which will simultaneously prepare many youngsters for higher education and yet enable them to leave the formal educational structure at various points and enter upon their adult life with marketable skills. The traditional criticism has been that vocational education fails to provide young people with adequate cultural preparation and narrows not only their educational choice but their ability to adapt themselves to a rapidly changing society. The criticism of the academic curriculum has been that for those youngsters who, for a variety of reasons do not go on to college, the knowledge, skills, and attitudes developed at the secondary school level leave graduates and drop-outs alike with no place to go.

There is no need here to recap in detail the criticisms which have been made of the traditional program of vocational education, namely, that the skills taught tend to be narrow rather than generic, and that a large number of people prepared for specific occupations never actually enter such occupations after graduation from school. Moreover, with the rate of technological change being as rapid as it is, it is evident that a number of our high school students have to be prepared now for occupations which, at this moment, do not even exist. The question comes down to this -- how shall we prepare the young people for an occupational potential which will enable them to adapt broad skills, knowledges and attitudes to a large variety of occupational needs?

It is recognized that one of the virtues of vocational education is its ability to make attractive and intelligible to a sizeable number of high school students, material which otherwise would have no relevance to them. This fourth R of "relevance" would, among other things, tie the large amount of general subject matter to a broad occupational core.

The occupational goals of young people, their desire for economic self-sufficiency, and their interest in selected vocational activities, can provide the motivation for achievement in related subjects such as science and mathematics and, to a lesser but significant extent, motivate students in the clearly liberal arts areas of language mastery and training for citizenship. Properly conceived, the occupational goal can be so broad that not only can the traditionally related subjects of science and mathematics be encompassed, but even English and social studies can be given greater significance to the high school youngster. The fact that English and social studies have a definite occupational relevance and value can increase achievement in areas which for many years have suffered from lack of student motivation and comprehension.

THE PLAN

The present plan of the Office of Education calls for the establishment of a series of experimental school curricula in a number of communities throughout the United States. In each of these communities there would be developed a new curriculum which would be relevant to the student and the community, and which would be tested for effectiveness in actual practice.

This proposal submits a plan by which the Office of Education would contract with E. F. Shelley and Company for substantive assistance in the management of an experimental research and development program designed to produce and evaluate a new secondary school curriculum.

It is envisaged that the desired outcomes of the secondary school curriculum will be described in a more precise and objective manner than has usually been the case, that a total organic curriculum designed to meet these objectives will be developed, and that instruments will be devised which will facilitate the periodic evaluation of the educational process at appropriate checkpoints. The precise definition of the desirable outcomes of instruction, the organization of school and other experiences designed to achieve these purposes, and the instrumentation required for the evaluation of knowledges, skills and attitudes which have heretofore gone unmeasured because of the absence of suitable tests, would all be developed through a number of independent contracts to be let by the Office of Education.

The specific assistance which E. F. Shelley and Company would provide to the Office of Education is set forth in detail under the heading PROCEDURES (A.10) immediately following the discussion of general program considerations.

GENERAL PROGRAM CONSIDERATIONS

The principal considerations underlying the proposed research and development program have been clearly enunciated by David S. Bushnell in "Ferment in Vocational Education", and by Robert M. Morgan and David S. Bushnell in "Designing an Organic Curriculum". In the following pages we review some of the considerations which bear on the specific services offered in the subsequent section on PROCEDURES.

Behavioral Objectives. The establishment of behavioral objectives is obviously the starting point for the development of a relevant system of comprehensive education. Occupational education, tied as it must necessarily be to successful job performance, directs our attention at every turn to the observable behavioral changes produced in individuals. But it is always a matter of conjecture as to whether a course in social studies turns one into a good citizen, or whether a course in high school biology will lead a student to eat the proper food or to brush his teeth regularly. Throughout general education there exists a wide gap between the professed aims of the course of study and the actual changes in behavior produced by the subject matter. In the proposed new curriculum it is anticipated that the gap between desired behavior and observed behavior will be narrowed or eliminated.

Occupational Clusters. The organization of the experimental curriculum will flow from the establishment of the behavioral objectives. In a society marked by rapid technological and social change, it is important to expand the concept of "occupation" to include an entire constellation of occupations which can be related to the student's general aptitude and interest, and which can provide an opportunity for work entry and advancement at various levels of training and intellectual capacity.

An example of such a constellation of occupations is the field of computer and information sciences. A series of closely related occupations which involve both manipulative and conceptual skills can be identified, beginning with such relatively simple occupations as coding clerk and key punch operator, continuing up through console operator, programmer and systems analyst, and thence to the highly technical and intellectually demanding tasks of computer hardware design and the development of computer languages and system philosophy.

Working with a closely related series of occupations would provide considerable flexibility in adapting courses of study to the special interests of individual students and to a wide spectrum of individual intellectual ability. In a traditional vocational education a certain level of intelligence was always a requirement. One could be either too dull for a specific occupation or be too highly qualified. This limitation is largely removed when the student is introduced to a broad constellation of related occupations.

Curriculum Design. Occupational studies would have to be prepared to define the broad occupational areas. This occupational analysis should describe the specific jobs in existence at the present time, and give some indication of new ones which are likely to develop. For each occupational cluster, specifications should be prepared describing skills, knowledges and attitudes required by the particular cluster and by individual jobs within the cluster. This occupational analysis should then serve as a guide for the preparation of curriculum material. The course of study should indicate what knowledges, skills and attitudes have to be taught in order to prepare a young person to enter the occupation and to progress in it. The material to be taught should be divided into units or modules which represent an effective division of the student's and teacher's time.

Next, the resources of modern educational technology should be brought to bear on the curriculum content, and preliminary judgment should be made as to how each module can best be taught. Certain units will lend themselves to conventional textbook approaches, others to the use of audio-visual aids, programmed instruction, laboratory work, simulators and the like. The course of study should indicate how the conventional related subjects, science, mathematics, drawing, etc. tie in with the occupation. English and Social Studies, although not directly tied to "shop work" and related subjects, should nevertheless be introduced in a way that provides for the maximum degree of relevance. The intention is to use the motivations inherent in the work experience to add value to every subject which is taught. The values in the general education courses and the vocational education courses should be viewed as working together for a comprehensive, organic educational program.

Evaluation. Obviously, certain aspects of education, e.g., language arts and social studies,are directly related to the broadest life activities. Their purpose in education has been recognized for a long time and the existing standardized tests in these fields do a reasonably good job of assessing achievement. However, in the frankly vocational area (shop work) and in the related technical area, instruments of appraisal have yet to be developed. The task here is simplified by the fact that adequate performance in the actual job is at once a valid, objective and reliable method of evaluating the educational preparation. However, levels of performance along the way need to be determined in order to determine rates of progress and curriculum modifications and to provide data for career guidance. In this area new appraisal instruments have to be designed and standardized.

No test now available or likely to be constructed will provide as accurate a measure of the effectiveness of the course of study as performance following graduation. Consequently, provision should be made for follow-up studies of recent graduates. These follow-up studies can provide the data required for continuous improvement of the instructional procedures. The process is inherently regenerative. Performance on the job is not only the best criterion measure for the occupational skills but also gives some indication of the general education and personality development of the graduate. Occupational failure is frequently caused not by lack of occupational skill but by the lack of adequate general education and wholesome personality development. Occupational competence broadly defined pertains not only to occupational skills and attitudes, but to a wide gamut of citizenship skills, language mastery and social skills.

Guidance Services. While the tasks outlined above are being pursued, it is necessary concurrently to deal with the development of a system of guidance services which would appraise the intellectual and occupational potential of high school youth, would study their broad gauge occupational interests, and would provide them with sufficient information concerning occupations to enable them at the high school level to make an intelligent choice, recognizing that choices are tentative and not final and that the areas selected are broad gauge enough to provide for variations within the category.

The career guidance component must be sophisticated enough to recognize that informed and intelligent choices cannot be made by young adolescents on anything other than a tentative basis, and that the course of instruction itself will create checkpoints at which a continuing appraisal of occupational interests and aptitudes can be made. In this connection it will be recognized that although a number of instruments for the determination of occupational interests and aptitudes is available, additional instrumentation will have to be developed. Beyond this, the relevant occupational information which would undergird the student's choice of occupation will not only have to be updated but must be projected into the future. There is no way of being practical about today's programs without some dreaming about the future. The vocational or career guidance program would deal with the factors required by a young person to make a choice of broad occupational classification and make the student aware of the preparation required for entrance into that occupation and for advancement within it.

Organization. A new type of organization must be developed to implement this research and development program and to insure effective use of the systems approach and the appropriate new technologies. What is anticipated is a joint venture of a number of school systems and corresponding state education departments, and universities, foundations, private commercial enterprises and various agencies of government.

It is contemplated that the entire research and development program suggested here will be organized on a systems basis to provide for the rational and orderly specification and development of all of the components of the educational system which ultimately will be established. The system organization and operating plan will be developed initially by working from the behavioral objectives established, to a definition of the appropriate educational system characteristics and components, and thence to the establishment of schedules and performance criteria including the conventional PERT schedules, program review points, cost effectiveness reviews, and manning, staffing and contracting schedules. The systems operation of the overall research and development program would involve a regenerative process in which the evaluation of the product would continously feed back to a re-definition of the procedures of the program.

The pilot schools which will participate in the program can be viewed as operating under a centralized leadership with respect to the program. A system must be devised for the effective utilization in all participating school systems of any worthwhile innovations developed in any of them. The participating school systems are not merely implementing a centralized policy. They should be continuously providing the data for the appraisal of every phase of the program. If the full value of a multiplicity of separate autonomous installations is to be realized, a system must be devised for the interchange of data, the sharing of best practices. A negative result in a single school system can have the most beneficial consequences if all other schools are alerted to the facts. The multiplying effect of a worthwhile innovation can be achieved only if continuous intercommunication is available among the various installations. The development of such a system of intercommunication is viewed here as one of the essential elements of the systems management responsibility.

Educational Technology. There is no need here to repeat the arguments for the development and use of new instructional devices. It has been evident for many years that the best instruction is that which is individualized, and that much of the content of any course of study can be taught by the use of appropriately programmed devices and suitably prepared material, thus freeing the teacher to carry out those responsibilities which no machine can now perform or is likely to perform in the near future. These devices and materials run the gamut from computer-assisted instructional equipment and programs through motion pictures and transparencies to paired-associate memorizing aids and auto-scored test kits.

The essential question is the determination of what type of device or technique should be selected for the most effective and economical presentation of any given instructional module. What is needed at the moment is not the development of more sophisticated hardware but rather the intelligent deployment of appropriate hardware and the purposeful development of adequate software which will be appropriate, accessible and convenient to use in an integrated multi-media instructional framework.

Teachers at the present time make limited use of audio-visual devices and other instructional aids because of their bulkiness, inaccessibility and difficulty of handling. There is a vast library of films which receive relatively little use because most teachers prefer not to thread film into a machine or borrow a projector from the school office. The great collection of films already produced can be utilized advantageously when the student's desk contains a suitable viewing screen and when the insertion of a single cartridge or the pressing of a button will give an individual student exposure to a chosen film or other instructional module. In this connection it is important to remember that ruggedness, compactness and low cost are important attributes of educational hardware.

The application of technology to education must deal with the inherent human resistance to the use of unfamiliar devices and techniques. A pertinent question to be considered at appropriate points in the development of the new technology is -- will the typical American teacher prefer to use the new techniques rather than the familiar, conventional techniques? The astuteness with which the system designers can deal with this question will largely determine the acceptance and usefulness of the new technologies in the field of education.

PROCEDURES

It is contemplated that E. F. Shelley and Company will provide systems management assistance to the U. S. Office of Education in the preparation, organization and conduct of the experimental research and development program outlined above. We will generally assist the Office of Education in the overall coordination of the program, while executing specific tasks assigned to us, all in accordance with the following proposed procedures:

1. System Planning

We will assist the Office of Education in constructing the overall system development plan and the detailed operating plan for the proposed research and development program.

In satisfying the functional requirements of curriculum definition, design, production and validation, we will assist the Office of Education in the definition of an equal opportunity curriculum; in the analysis of behavorial requirements; in the selection of terminal performance specifications; in the development of appropriate media, measurement instruments and technical inputs; in the organization of teacher and administrative staff training; and in the installation of the experimental curriculum in pilot schools.

In the development of a detailed operating plan we will assist the Office of Education in establishing PERT schedules and in monitoring programs, as further outlined below.

2. Pilot Schools

We will assist the Office of Education to develop criteria for the selection of pilot schools and other participating organizations.

In order to get the entire program under way as quickly as possible, first attention must be given to the selection of the pilot schools which will serve as validation centers. Preliminary contacts have already been made with a number of school systems throughout the country. These must ultimately be selected with a view to appropriate geographical distribution and with attention paid to the quality of leadership likely to be exercised in specific schools or school systems. As a first step, it is anticipated that representatives of these school systems will be brought together in order to permit an appraisal of the appropriateness of the sample, and provide an opportunity for the chief school administrator and his chief research director to meet with their opposite numbers in the other school systems. It is recognized that certain elements in the design should flow from the characteristics of the sample schools, while some of the schools should be chosen specifically to fit certain pre-determined elements of the design. It would be highly useful to bring together the potential pilot schools as promptly as possible and involve the leadership of these schools in the design of the entire project.

At this first meeting decisions would be taken as to whether or not the school systems with which contacts have already been made are appropriate and available. Assurances would have to be provided that in addition to the innovative spirit and research capability of the school system leaders, there exists a community climate and school board leadership which is in tune with a program, the immediate operation of which and the ultimate consequences of which are likely to bring about radical changes in the operation of the school system as a whole.

An essential element in the selection procedure rests on the fact that the entire program is not to be implemented de novo, but is to be developed around the existing resources, physical and personnel, of the school systems selected. Illustratively, the selection of courses in which the maximum effort is to be undertaken in each school would rest on analysis of the strength of the various systems. We would assist the Office of Education in establishing a balance between the necessity of overlaying new procedures on an existing base and simultaneously minimizing the tendency of the existing structure and organization to discourage necessary innovations.

It is important that the pilot school systems, along with the Office of Education, participate in the establishment of the program objectives. We would assist the Office in making certain that these objectives represented integrated school, industry, and community effort.

3. Program Development

It is recognized that the new curriculum will not be installed at a single stroke. It will be a continuous development of program elements. We will assist in coordinating this activity among the various schools to insure cooperative activity and, hopefully, even synergistic action, and to avoid unnecessary duplication. We will assist the Office of Education and school officials in the try-out of program elements and in the integration of these elements into the total curriculum.

Since it is envisaged that the new curriculum will be developed in modular form, we will assist the Office of Education in coordinating the planning, development, try-out, validation, modification and operation of new instructional modules, and in integrating program elements of a technical or operational nature. We can bring to bear expertise of the highest quality in integrating school and community effort with the industrial sector.

The new outlook would require an accelerated in-service training program for the teaching and administrative staff of the school systems. We will assist the Office in the preparation and evaluation of such training programs. The in-service training program will prepare the professional staff of the school systems for their new and wider responsibilities. Simultaneously, the Office of Education and school systems must work along with university teacher training programs to establish new programs which will meet new faculty requirements. We will assist the Office in coordinating these efforts.

An important objective of the new curriculum is to prepare people for careers rather than jobs. Accordingly, it will be important to establish career groupings. These groupings should not only reflect the manpower needs of the nation but should provide for gradual change-over from the existing capabilities of the participating schools. Developing cost analyses of needed changes in vocational shops is relatively easy, but the task of redeploying and redesigning existing staff is massive. We are prepared to assist the Office of Education in developing strategy for this substantial component of the total program.

4. Evaluation and Cost Effectiveness

We will assist the Office of Education and school systems in establishing measurable criteria which would be used ultimately to determine whether or not the program objectives had been met. We will assist the school leadership and the Office of Education in the establishment of appropriate evaluation techniques at various points in the program. Where adequate appraisal instruments are not presently available, we will assist the Office in determing how such new instruments should be prepared. The establishment of evaluation techniques and measures would rest on a careful analysis of behavioral requirements. In areas where such precise description is lacking, we would assist the Office of Education in arriving at decisions as to whether basic research projects should be initiated in cooperation with university centers or industrial research units.

We will assist in the establishment of suitable cost-effectiveness programs. These would involve both the cost of the research and development program itself, and the projected costs of administration of the ultimate curriculum being designed.

5. **Industrial Contracts**

We will assist the Office of Education in its program to enlist the services of private commercial and industrial contractors in the conduct of the research and development program.

Specifically, we will help to identify research and development projects to be initiated in each fiscal year, we will assist in the preparation of specifications and invitations to bid, we will propose agenda and develop pertinent material for bidders conferences, and we will assist the Office of Education, where appropriate, in the analysis and evaluation of proposals and bids.

6. **Monitoring**

We will assist the Office of Education to establish checkpoints and procedures for monitoring the progress of each private contractor, and each private and public school and university involved, against the criteria established under each contract or grant.

As components of the program are installed and put into operation in the various pilot schools, we will assist the Office of Education in maintaining a progress record so that the feedback will lead to prompt revision. In this connection, we will review the desirability of designing and programming a data processing system which would be capable of monitoring the entire program from the first step of establishing the program objectives to the final analysis of results.

7. **Information and Communication**

We will assist the Office of Education to establish procedures for interchange of information among participants in the overall program. In this connection we will help to organize conferences, prepare agenda and informational material, and generally act to insure adequate interchange of information throughout the program.

We will assist the Office of Education in providing for the dissemination of information on the research program by liaison with the American Vocational Association and other professional associations, and by publication in appropriate scholarly and professional journals and periodic reporting of work and progress to State education agencies and to the regional agencies with which the pilot schools are associated. At appropriate points we will assist the Office of Education and school systems in developing professional support for the new curriculum by appropriate communications to professional associations and through publications in appropriate media. We will assist in the enlistment of community support through publication in the popular media.

8. Reports

We will assist in the preparation of periodic summary reports of the progress of the entire program.

E. F. SHELLEY AND COMPANY, INC.

CONSULTANTS • COMPUTERS & INFORMATION SYSTEMS

NEW YORK and WASHINGTON

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April 5, 1968

Mr. David S. Bushnell, Director
Division of Comprehensive and
Vocational Research
U. S. Office of Education
400 Maryland Avenue, S. W.
Washington, D. C. 20202

Dear Mr. Bushnell:

Under Contract #OEC 1-7-071037-3596 we are providing systems management assistance to the Office of Education in the development of a new comprehensive secondary school curriculum -- program ES '70.

Since its inception last May, ES '70 has grown from a program involving twelve school systems to one which now involves seventeen school systems located in all geographic regions of the United States. During the same period of time, the chief state school officers, particularly those in the fourteen states having ES '70 school systems under their jurisdiction, have become increasingly involved in the communication and administrative areas of the ES '70 network. Further, the role of the United States Office of Education has been more explicitly defined.

Accordingly, specific policy and procedural statements were adopted by the seventeen schools in the network at the general meeting conducted in Atlanta, Georgia in February 1968. These policy and procedural statements place responsibility for the direction of ES '70 more squarely in the hands of an Executive Committee made up of four local district superintendents from four widely scattered geographic areas; and two chief state school officers from two of the states participating in the ES '70 program.

The enlargement of the ES '70 organization, the diffusion of direct policy determination, and the developing requirements of the ES '70 program all indicate the need for a

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modification in the management assistance responsibilities originally assigned to this contractor.

Visits and Exchange of Information

School districts in the ES '70 network have requested that members of the E. F. Shelley and Company staff visit their communities in order to facilitate the more rapid exchange of information and to broaden the base of understanding of local problems and of progress on the local level as each community strives to meet the objectives of the ES '70 program. Such visits will aid in the development of an initial information system. They will also begin defining the criteria for later, more automated information processing.

Proposed Additional Scope of Work (1)

It is therefore proposed that the scope of work be amended to provide for suitable district visits by E. F. Shelley and Company multi-disciplinary teams. These visits will provide for the following specific functions:

1. They will enhance the coordination and monitoring of the many faceted ES '70 activities, as the districts become more heavily involved.

2. They will provide a working and effective channel of communication between the districts on the one hand, and the Executive Committee and the U. S. Office of Education on the other, and they will help to provide the necessary feedback and iteration as the ES '70 program develops.

3. They will begin to identify and explore the most pressing questions and those areas of the program requiring further definition and explication for the districts. They will aid the U. S. Office of Education and the Executive Committee in developing timely reaction and response on a general policy level, as well as on a more specific program and infra-structure level.

4. They will make it possible to follow up and supplement the information gathered by the survey and questionnaires initiated under the direction of the Executive Committee. The objective of this personal exchange of information and ideas flowing from the questionnaires would be:

    a. To develop more precise, in-depth knowledge of innovative programs and techniques already underway in the districts, some of which have direct pertinence to ES '70 objectives.

b. To explore with the districts those elements of information identified as having particular pertinence to ES '70 goals, with the immediate task of examining the forms and methods most appropriate for the collection of key data for later analysis and processing.

c. To achieve a more detailed knowledge of the information processing approaches in the 17 districts, including equipment, applications and personnel involved. The purpose would be to:

- Avoid duplication, inefficiency and the imposition of burdensome requirements on the districts when the data referred to in (b) above begins to be collected.
- Aid an ES '70 network information systems design approach which uses, when possible, pertinent, applicable processing already going on in the districts.
- Based upon specific knowledge, leading to specific technical suggestions, facilitate any changes or additional procedures requested of the districts to further the data collection and research information needs of the ES '70 program.
- Aid in the identification of specific processing alternatives, needs and requirements in the districts. This will have significant impact on realistic ES '70 system design. It can also have impact on the design of projected regional data processing centers which must take cognizance of existing local approaches for future successful integration, transition, conversion and local acceptance of the services offered. As a practical, significant, if supplementary aid for ES '70 districts, it could have impact on a close identification by the district with the ES '70 program.
- Begin to identify, categorize and organize data elements relating to ES '70 programs in order to achieve compatibility, comparability and objectivity in the collection and handling of this data.

d. They will constitute a prime and reliable source of substantive information gathered in (and discussed with) the districts for entry into an ES '70 central data storage and interchange point, from which information can be drawn for newsletters, management reports, technical and program reports, and other data disseminated to all participants.

Implementation of Information Sharing System

While the present scope of work calls for the preliminary design of an information system, the rapidity of the progress of the ES '70 program and the desire expressed by the ES '70 Executive Committee, by responsible officials of the seventeen participating school districts, by the chief state school officers and by various academic associations, interested public officials, university administrators and professors as well as responsible representatives of private industry, requires that a basic information sharing system be activated immediately.

Proposed Additional Scope of Work (2)

In order to expedite both the exchange of information and the establishment of a broad information sharing system it is proposed that the scope of work be amended to provide for the production of suitable printed and other material and that the following activity be initiated:

1. A newsletter covering a broad spectrum of ES '70 activities of interest to a number of educational groups will be prepared and distributed monthly (except for July and August). The first two issues of such a newsletter will be issued in May and June 1968. Beginning in September 1968 monthly issues of the newsletter will be distributed through June of 1969.

2. In response to a need expressed by teachers in ES '70 schools and administrators and coordinators of the ES '70 school districts throughout the United States for information regarding innovative practices currently in operation, all school districts in ES '70 network have been requested to provide information on current innovative practices. A book will now be prepared, for distribution to the participating districts, to provide information on all reported innovative programs underway during the 1967-1968 school year in the ES '70 network schools.

3. A definitive booklet will be prepared describing:

    a. The background and rationale of ES '70.
    b. The elements of an ES '70 school.
    c. The time schedule and operational procedures proposed to achieve the goals of ES '70.

4. An audio-visual presentation, suitable for use by the U. S. Office of Education, local participating school districts in the ES '70 system, chief state school officers, interested boards of education throughout the United States and various planning and citizens' groups, will be completed by May 1968.

5. Base line data submitted by each of the seventeen participating districts will be compiled into a suitable publication which will permit each district to compare and contrast its present position, in terms of the data collected, to the other sixteen school districts.

6. A survey will be developed to ascertain each school district's data processing capabilities and applications, their instructional equipment and program repertoire, and the elements of information included in their respective cumulative school records. The collection and tabulation of such information is essential for determining the information needs of all districts and for developing comparability and feasibility studies of various processing approaches envisioned within the context of the ES '70 program. Results of this survey will be tabulated, compiled and distributed to the appropriate agencies and school systems.

7. Typical questions about ES '70 from superintendents, coordinators, teachers, parents, students, and interested citizens in network school districts will be compiled. The most representative of these questions will be answered in a question-and-answer publication suitable for distribution to interested and appropriate agencies and individuals.

. A list will be compiled of pertinent and essential data which should be maintained for each student in the network schools. This data will establish a basis for maintaining valid, reliable and comparable data necessary to establish an information system and to assist in future research programs connected with ES '70.

9. Similar lists will be prepared for staff members.

10. The initial steps will be undertaken to design forms for the storage of information with a high degree of compatability, whether such forms and records are kept on paper, in EAM systems or in ADP systems.

11. Production of other material will be undertaken as may be required in the course of the program.

In order to accomplish the additional work outlined herein, we respectfully request that the scope of work under contract # OEC-1-7-071037-3596 be amended as detailed above, and that the funds available for the year ending November 5, 1968 be supplemented by $117,759 as detailed in the supplementary budget.

Yours sincerely,

Edwin F. Shelley

EFS/re

cc: Dr. Richard B. Otte

APPENDIX B

Correspondence - Letters of Endorsement

July 25, 1969

Mr. Robert Pruitt
Acting Director, DCVER
U.S. Office of Education
400 Maryland Avenue, S.W.
Washington, D.C. 20202

Dear Bob:

It has recently come to my attention that serious questions are being raised which may threaten the continuation of the services provided by the E.F. Shelley Company to the member school districts in the Secondary School Improvement Program (ES '70). In the interests of the on-line school coordinators I am taking the liberty of writing to you to urge your office to permit the maintenance of this contract for as long as possible.

As one who has been directly involved with the project since its inception in May, 1967, I have witnessed the many hurdles which accompanied the birth of this infant organization. I watched it grow from an embryonic stage to a status of adulthood. This fascinating maturity took place in the short span of two years. Any observer of social institutions will certainly marvel at the rate of progress which this network revealed.

To attribute this progress to the dynamic leadership of eighteen superintendents or coordinators might be, in part, an astute observation. The aggressive leadership and creative imaginations of these key people were truly instrumental in the vital rearing process of the fledgling organization. The forward thinking minds of men in the Office of Education were equally essential to the maturation process and their guidance and counsel played an equally vital role in the development of the program. Yet, this combination was not sufficient. It is easy for me to say this now but I marvel at the keen perception of members of your office's Curriculum Advisory Board when they recommended in January, 1967 that an "outside consulting firm" be utilized to provide managerial support to such a dynamic enterprise and to incorporate "a kind of bright and sparkling quality."

Mr. Robert Pruitt
Washington, D.C.

July 25, 1969

The perceptive decision to engage a management consultant support service was not a product of the eighteen schools, therefore, but rather a creative recommendation from the official body which serves to guide your office's direction.

As I have said before, on several occasions, the organizational success achieved in the ES '70 effort is directly attributable to the services provided by the E.F. Shelley Company. To attempt to harness the diverse talents, philosophies and energies of eighteen school districts was indeed a most challenging assignment. To attempt to introduce the complex notion of systems analysis into the arena of public education was considered a doomed effort by many skeptics. To devise a management information system which would be serviceable to all parties was something that education has been struggling with for many decades. To establish linkages between on-going research efforts and receptive school innovators was imperative if educational research was ever hopeful of emerging from the test tube stage. To provide a centralized support system to serve eighteen school districts committed to a common effort was vital if there was to be any cohesion of effort.

I guess what I'm trying to say is that we could never have come this far without the guidance and support which was provided to us by the staff of the E.F. Shelley Company. Their sensitivity to management problems forced us to become systematic in our thinking. Their persistent attention to goals and objectives helped us move more definitively towards an attention to "output" and a reduced emphasis to "process" and "input." Without this assistance we would have been just another consortium of dreamers. With their help I think we are launched toward that moonshot that people in your office spoke about two years ago. And, with that in mind, let us remind our critics just how costly and lengthy our recent lunar landing project was. Immediate payoffs don't come that easy with such a comprehensive undertaking.

I really should apologize for being so long-winded. I think the message is clear. As a man in the field who has been closely associated with this effort for two years I can honestly say that we could not have come this far without the help of the Shelley Company. I feel as comfortable in saying this now as I did before in two previous letters which I am enclosing for your observation. Our stability in the next few months will certainly be strengthened as the network assumes its independent posture. Yet, these few months could find disaster to our whole effort if our support structure is abruptly severed. I urge you to consider our situation most carefully when rendering a final disposition on this matter. There is, of course, a complete respect for your position in being the sole agent for responsibility.

My best personal regards.

Sincerely,

Eliot G. Spack
Chairman
ES '70 Coordinators

EGS:fb
Enc
cc: Dr. Hugh Livingston (Blind)
Dr. George Donahue

ARCHDIOCESE OF CHICAGO SCHOOL BOARD
430 NORTH MICHIGAN AVENUE
CHICAGO, ILLINOIS 60611
TELEPHONE: 527-3200

HIGH SCHOOL DEPARTMENT

REV. THADDEUS J. O'BRIEN, O. CARM.
DIRECTOR
BROTHER JUST PACZESNY, C.S.C.
ASSISTANT DIRECTOR

July 28, 1969

Dr. Robert Pruitt
Division of Comprehensive
and Vocational Research
U.S. Office of Education
400 Maryland Avenue, S.W.
Washington, D.C.

Dear Dr. Pruitt:

This letter concerns the U.S. Office of Education contract with the E.F. Shelley Company.

You are well aware of the fact that the Shelley Corporation has been essential to the success of the ES '70 Project. It has provided communication for the network as well as invaluable management consultant service.

It has been our understanding that the Shelley contract would be permitted to continue until November, 1969. The ES '70 network is at a critical juncture in its existence. The executive committee of the ES '70 corporation is seeking an executive secretary and is also attempting to find outside funding for the project. In order to maintain the network the services of the E.F. Shelley Company are desparately needed at least until the position of the executive secretary is filled. If the nineteen cooperating school systems lose the service of E.F. Shelley it could mean the death blow to the network.

The U.S. Office of Education has already expended large sums of money for the project. The continued funding of E.F. Shelley can easily guarantee that the money already expended is not wasted.

I would ask you to do all in your power to urge the continued funding of the E.F. Shelley contract through November, 1969.

Best personal regards,

Thad J O'Brien

Rev. Thaddeus J. O'Brien, O. Carm.
Associate Superintendent

bcc: Mr. George T. Donahue ✓

170.

State of New Jersey
DEPARTMENT OF EDUCATION
225 WEST STATE STREET
TRENTON, NEW JERSEY 08625

OFFICE OF THE COMMISSIONER

July 24, 1969

COPY

Dear Bob:

The rumors have even reached New Jersey and I would simply like to indicate to you that I think the ES'70 program is at a critical point and urge the continuance of the E.F. Shelley contract until, at least, November 5th.

It is my opinion that Shelley Company has done an outstanding job for the network--one that we simply did not have in-house competence to perform.

Once again I urge that you do have things within your power to continue that contract.

Sincerely,

Carl L. Marburger
Commissioner of Education

Dr. Robert Pruitt
Department Director
Bureau of Comprehensive
and Vocational Research
Office of Education
Washington, D.C.

CLM:bw

July 29, 1969

Dr. Robert Pruitt
United States Office of Education
400 Maryland Avenue
Washington, D. C.

Dear Bob,

I have just been made aware of the termination of E. F. Shelley's services to the ES'70 Corporation, as I understand it, effective earlier this month. While, after some study and perhaps discussion it may be determined that the services of E. F. Shelley Corporation are no longer required by us, it places the corporation in a rather awkward position to have those services terminated in effect retroactively. It would seem that we should have a period during which they could be phased out and we could make other arrangements to perform the duties and responsibilities which they have handled.

Is there any way in which their services could be extended at least through the period in November which was anticipated by us all?

Sincerely,

Gabriel H. Reuben

BLOOMFIELD HILLS SCHOOL DISTRICT
Bloomfield Hills, Michigan 48013

Eugene L. Johnson, Superintendent
Ellen Beauchamp, Administrative Assistant

Robert F. Boston, Assistant Superintendent - Curriculum
Marilynn Wendt, Curriculum Assistant
Irving E. Menucci, Assistant Superintendent - Business
Erwin M. Johnson, Assistant Superintendent - Auxiliary Services
Clyde C. Fischer, Personnel Director
Kathleen Pearson, Special Education Director
Edwin Wichert, Recreation Director
Donald J. Shulick, Purchasing Agent

PRINCIPALS

Richard J. Spiess, Bloomfield Hills Andover High School
David P. Cook, Bloomfield Hills Lahser High School
Glenn W. Bedell, Bloomfield Hills Junior High School
William M. McGuire, East Hills Junior High School
Harry L. Smith, Acting Principal, East Hills Junior High School
Richard R. Thomas, Booth Elementary School
Marjorie Thomas, Conant Elementary School
Ruth DeCou, Eastover Elementary School
Nathan G. Hargett, Hickory Grove Elementary School
Lester W. Utterback, Pine Lake Elementary School
Marguerite Bean, Traub Elementary School
Ivor D. Housler, Vaughan Elementary School
Geneva Forslund, Wing Lake Elementary School

172.

July 23, 1969

Dr. Robert Pruitt, Deputy Director
Division of Comprehensive and Vocational Research
Department of Health, Education and Welfare
United States Office of Education
400 Maryland Avenue, S. W.
Washington, D. C. 20202

Dear Bob:

As a member of the ES'70 network and presently a member of the board of directors for that organization may I comment on the help needed of the E. F. Shelley Company.

It seems to me the ES'70 network is at the crossroads. Whether we continue to function and move forward in our educational endeavor, will in a real sense depend upon a continuation of the services of the Shelley Company. We particularly need the services of this company until the network can make other arrangements. The next few months are extremely important; the help and services provided by E. F. Shelley are vital to a continuation of our program. Any assistance you can give us would be appreciated.

Sincerely,

Eugene L. Johnson,
Superintendent

ELJ/lv
cc: Dr. George Donahue ✓
E. F. Shelley and Company, Inc.
1730 Rhode Island Avenue, N. W.
Washington, D. C. 20036

173.

SAN MATEO UNION HIGH SCHOOL DISTRICT

San Mateo, California

July 22, 1969

Dr. Robert Pruitt, Acting Director
Bureau of Comprehensive and Vocational Research
U. S. Office of Education
Washington, D. C. 20202

Dear Dr. Pruitt:

In discussing plans for our meeting in late July with George Donahue he indicated that his attendance at the meeting was in doubt due to some uncertainty over the E. F. Shelley Company contract.

As you know, the Network is in the midst of re-establishing itself as a not-for-profit corporation and is seeking funding for the underwriting of its basic administrative expenses. The Shelley Company and Dr. Donahue have been most helpful to the Network during the period of this contract. In fact, the services rendered have been essential to the success achieved thus far.

As we proceed with the reorganization of the Network and the establishment of its headquarters office, any chance for real continuity of activity will be lost if the Shelley contract should be terminated as of July. As you may recall, one of the reasons for extending the contract to November was to allow the necessary time for the Network to become established to determine its needs for continuing management consultant service which Shelley has provided. I would certainly hope that the responsible parties in the Office of Education would respond favorably to the continuation of the contract through the agreed upon period ending in November. At that time we will be in a position to know with some certainty the various requirements which the new organization suggests.

I will look forward to seeing you in Denver at the end of the month. I hope that you can have this matter resolved by that time so that our meeting will be productive.

Sincerely yours,

A. Hugh Livingston
Superintendent

mts

(Retyped from original)

MINEOLA PUBLIC SCHOOLS
UNION FREE SCHOOL DISTRICT NO. 1
TOWN OF NORTH HEMPSTEAD

200 EMORY ROAD
MINEOLA, NEW YORK 11501
747-6700

BOARD OF EDUCATION

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GEORGE S. EATON . . .
VINCENT L. FEDERICO . TREA
FRANCIS X. SPERL . CO

BEN WALLACE
SUPERINTENDENT OF SCHO

October 24, 1968

Dr. Ben Wallace, Chairman
ES '70 Executive Committee
Mineola Public Schools
200 Emory Road
Mineola, New York 11501

Dear Dr. Wallace:

I find that it is too often the case that we who are so concerned with efficiency and positive production lose sight of passing on the virtues of certain activity. We somehow feel obligated to be highly critical but rarely do we offer the necessary commendations.

In light of the above confession I am writing to you to bring to your attention the great satisfaction I have experienced with the work of George Donahue and the Shelley Company. In every request I have made of them the response has been almost immediate and completely thorough. In my role as chairman of the coordinators' conference I had the opportunity to observe their masterful handling of arrangements and their willingness to assist in any way possible. As problems and inquiries arose during the sessions, Dr. Donahue was quick to seek the necessary answers and respond to the group. For all his assistance I was truly grateful.

I realize that the network representatives have uttered certain feelings of frustration at the inadequacy of the information system and this has often been transferred as criticism of the Shelley Co. I can't help but sympathize with the problem faced by this company since I don't feel that network members really know what they want. Once this is carefully identified, the solution should be made much easier.

Sincerely,

Eliot G. Spack

Eliot G. Spack, Chairman
ES '70 Coordinators Steering Co

EGS/mw

175.

March 14, 1969

Mr. Edward F. Shelley, President
E. F. Shelley Company, Inc.
866 United Nations Plaza
New York, New York 10017

Dear Ed:

On behalf of the ES '70 coordinators I am writing to express their deep appreciation to you for the services provided by members of your staff in support of our network. The difficulties of raising an infant and hoping it will mature into a meaningful adult requires many unique qualities. Together we have witnessed a maturation process which was both nurtured and accelerated by the assistance of many dedicated people. For the services provided by the representatives of your company, we are extremely grateful.

We wish to pay particular tribute to the increasing efforts and attention provided by George Donahue. His direct involvement with the coordinators has produced a spark which has kept the flame alive. His assistance in arranging for our meetings, his response to every request for supportive material and his highly valued advice and counsel have contributed invaluably to the success we have achieved. We are indeed very fortunate to have a man of his youthful vigor and wisdom at our side.

We, once again, thank you for your cooperation and look forward to the maintenance of continued success in the months ahead.

Best personal regards.

Sincerely,

Elliot G. Spack, Chairman
ES '70 Coordinators

GS:fb
c: Dr. Ben Wallace
Mr. David Bushnell

RASMUSSEN
SUPERINTENDENT

JOHN O. MULDOON
E.S. '70 PROJECT
COORDINATOR

The Board of Education of the City of Duluth

BOARD OF EDUCATION BUILDING

Duluth, :: Minnesota

176.

Nov. 25, 1968

Mr. Lewis Rhodes
E.F. Shelly Co.
1730 Rhode Island Ave. N.W.
Washington, D.C. 20036

Dear Lew:

Thought I would drop you a note to tell you what a fine job I think you did on the tape-slide presentation we viewed at the meeting in Washington last week. This is the type of presentation that would be very helpful to the coordinators, in my estimation, internally and locally. It would be very beneficial to me if I could receive a set of the presentation as soon as possible. I have put together my own presentation, but the quality is not nearly as good. In the next few months, I have several speaking engagements at which I planned to use my own presentation. Yours would be much more meaningful. So, I would appreciate it if you could see to getting me a copy as soon as possible.

I have already also written to your New York office to request 100 additional copies of the lates newsletter, and 500 additional copies of the one page special edition newsletter. If I have written to the wrong office, I would appreciate it if you could give this letter to someone in the Washington office who could honor this request.

It was good to see you and members of your staff at the meeting in Washington. When are you going to make a visit to Duluth. If you don't come pretty soon, we may be snowed in for the winter and you will have to wait for the Spring thaw. Keep up the good work.

Sincerely yours,

John

John Muldoon
E.S. '70 Coordinator

Battelle Memorial Institute · WASHINGTON, D.C. OFFICES

1755 MASSACHUSETTS AVENUE, N.W., WASHINGTON, D.C. 20036 · AREA CODE 202, TELEPHONE 232-8553

October 20, 1969

Mr. E. F. Shelley
E. F. Shelley and Company, Inc.
415 Madison Avenue
New York, New York 20017

Dear Ed:

As I may have mentioned during our brief meeting on Thursday, *Phi Delta Kappan* will be featuring the attached three articles in its December edition (mailed during the first week of December). Because they intend to highlight ES '70 on the cover of the issue and to include photographs of a number of the superintendents and coordinators participating in the program, I felt it would be worth an "honorable" mention in the upcoming November edition of the Newsletter. The editor will make reprints available to any of the participating school districts requesting them. The reprints will include as a package the journal cover, photographs of selected members, information on all schools, superintendents, and coordinators in the network, and the three articles.

If ordered in bulk, the reprints would be considerably less expensive, e.g., $25.00 for the first 100, $6.00 for every additional 100. Would you be willing to serve as central clearinghouse and so state in the Newsletter? If not, please designate who in the network should be contacted as coordinating point. Incidentally, the above rate is not yet final but is approximately correct (depends on the number of pages).

I am also attaching a small news item which illustrates that the contract system concept has percolated up even into the universities. This may or may not have some interest for the Newsletter readership.

As the ES '70 contract draws to a close, I wanted to go on record as saying that you and your associates have certainly done an outstanding job. One has only to think about the state of disorder which prevailed some two years ago to realize how far we have come. Much of the coordination and information exchange has been the direct result of your company's planning and implementation capability. I, for one, was very satisfied with the extent and quality of your contribution.

Let me know if we can get together in the near future for lunch.

Cordially yours,

Dave Bushnell

David S. Bushnell
Advanced Study Fellow

DSB:ci
Enclosures

cc:
George Donohue

July 22, 1969

Dr. Robert Prewitt, Director
Division of Comprehensive and
Vocational Research
Bureau of Research
Washington, D.C.

Dear Bob:

I can imagine that you must have your hands full now with Dave gone, From what I hear, mostly from Dave, the climate for ES '70 has improved somewhat in the office. I met once or twice with Gallagher on ES '70 and I thought his reaction was receptive.

With all the administrative changes in USOE, the several changes in Superintendents and the reduction in fund levels it really is a miracle that ES '70 and the organic curriculum has survived. And I gather that during this period of transition the going is still tenuous. I just learned from George Donahue that there was some administrative hold-up on the expected continuation of their funding. I would think that the support to ES '70, while they are shaking down into a corporate entity, that Shelley's group provides would be especially crucial for the next four or five months. The company's unique relationship to the Division and the network of schools has been unorthodox but I venture that ES '70, as an organization and a concept would not have survived to now without the wide range of support provided by the Shelley group.

I hope that something can be done to untangle the contractual knots so that this effort can continue. If there is anything I might be able to do on this matter I hope you'll let me know.

Why don't you and your wife plan to come down this summer, stay with us and let's do a little fishing. Lots of things have happened that take too long to put in a letter.

Cordially,

Robert M. Morgan
Professor and Head

RMM:lap

APPENDIX C

List of All Reports, Brochures,
Newsletters and Other Papers
Developed Under This Contract.
Two Copies of Each Delivered
to Mr. Pruitt.

List of All Reports, Brochures, Newsletters and Other Papers Developed Under This Contract. Two Copies of Each Delivered to Mr. Pruitt.

Reference Number	Materials
1.	ES '70 Report No. 1, 5/67
2.	ES '70 Report No. 2, 8/67
3.	ES '70 Level I PERT, 9/67 Report of Duluth, Minnesota Joint Meeting of Superintendents and Coordinators, September 28-29, 1967
4.	ES '70 Report No. 3, 10/67
5.	Proposed Policy Statement for ES '70 Primary Network, 11/67
6.	Primary List of Essential Data for Information System, 11/67
7.	Preliminary Base Line Data Report On ES '70 School Districts, 9/67
8.	Schematic PERT Schedules and Progress Monitoring for the ES '70 Program, 1/68
9A.	Suggested GANTT Charts, 1/68
9B.	PERTs ES '70 Network Activities, 11/68
10.	Guidelines for the Design of An ES '70 Information Processing and Progress Monitoring System, 2/68
11.	PERT Chart for Individual District, 1/68
12.	Preliminary Schematic for ES '70 Network Coordination
13.	Agenda, ES '70 General Meeting, Atlanta, Georgia, 2/68
14.	Report on ES '70 Operations of E. F. Shelley and Company, Inc., by Richard Otte, 10/68

15. Copies of Slides Made Into Overhead Projections

16. Report, Some Elements of An ES '70 School, 2/68

17. Policies and Procedures for the ES '70 Program, 2/68

18. ES '70 Report No. 4, 2/68

19. Preliminary Information on the Background and Rationale of ES '70, 2/68

20. ES '70 Report No. 5, 3/68

20A. ES '70 News, Vol. 1, No. 1, 5/68

21. Base Line Data Statistical Summary, 5/68

22. Questions and Answers Regarding ES '70, "Educational System for the '70's", 5/23

23. An Educational System for the '70's, Draft, 5/68

24. Primary Network Innovations First Annual Report, 5/68

25. Network Executive Session, 7/3/68

25A. ES '70 Coordinators Organization, 5/68

26. Summary of ES '70 National Conference, San Mateo, California, 5/68

27. ES '70 News, Vol. 1, No. 2, 6/68

28. Memo, Summary of Meeting of Seven School District Coordinators and Title III Coordinators, Washington, D. C., 6/68

29. Minutes of Executive Session, 7/12/68

30. Report Made to Executive Committee and Superintendents of ES '70, re: PERT Items 5-9 and Instructional Management and Guidance

31. Incorporation Information from Hays, Sklar and Herzberg, 7/10/68

32. Progress Report, ES '70 Information System, 9/68

32A. Minutes of Executive Meeting, 9/68

33. General Outline for Visit to Office of Education Project Directors; General Plan for Field Visits to ES '70 School Districts

34. Objectives for Site Visits to ES '70 Schools

35. ES '70 News, Vol. 1, No. 3, 9/68

36. Information on Chicago Archdiocese, 8/68

37. Statement of Function of ES '70 Coordinators

38. ES '70 Coordinators Conference, 10/68

39. Slide/Tape Presentation, 10/68

40. Abstracts of Office of Education/ES '70 Research Projects

41. ES '70 News, Vol. 1, No. 4, 10/68

42. List of Comments and Questions from Coordinators Meeting (memo 10/14/68)

43. "An Educational System for the '70's", presented at Aerospace Education Foundation Conference, Washington, D. C., 9/12/67

44. Report on Visits to OE Project Officer, 10/21/68
Report on Visits to OE Project Officer, 10/22/68

45. Meeting of Executive Committee of ES '70, 10/25/68

46. First and Second Edition of booklet "An Educational System for the Seventies"

47. ES '70 News, Vol. 1, No. 5,6, 11/68

48. ES '70 News. Special Edition, 1968

49. Rationale for Position of Executive Secretary and Job Description, 1/68

50. Report of Field Visit to Mineola High School, 11/68

51. Report of Field Visit to Mamaroneck High School, 11/68

52. Report of Field Visit to Quincy, Massachusetts, 11/68

53. Site Visit Contract #7-1231, Harvard University, 1/13/69

54. Comments Re: Meeting at Annapolis 11/4, with Sterling Institute and Naval Academy Personnel (Contract 8-0447)

55. ES '70 Report No. 7, 12/68

56. ES '70 Organization Structure
Outline of Student Personnel Data Items
11/68

57. Charts and Tables Related to the Presentation on the ES '70 Management System, 11/68

58. Notes of a Meeting with Dr. Robert Morgan at the Washington Office of E. F. Shelley and Company, Inc., 11/68

59. Site Visit Report to Nova University, 12/68

60. Minutes of ES '70 Executive Committee Meeting, 12/20/68

61. The Linking Agency: A New Force in Educational Management

62. Standard File Identification, 2/69

63. Personnel in ES '70 Network Systems Interested in Working on R&D Projects, 2/69

64. Summary of Recommended Agenda for 11/21/68 Network Meeting

65. Ryan Testimony Before the Committee on Education and Labor, House of Representatives, 2/3/69

66. Certificate of Incorporation, 2/11/69
    By-Laws of ES '70

67. Minutes of ES '70 Executive Committee, 1/31/69

68. Minutes of ES '70 Executive Committee, 2/16/69

69. Memorandum to Coordinators Re: Houston Meeting and Miscellaneous Items

70. Memorandum to Coordinators Re: Local PERT Charts

71. Agenda, ES '70 Coordinators Meeting, 3/3-4/69

72. Proposal for Foundation Participation in Funding Management Segments of ES '70
    Outline of a Proposal for Administrative Reorganization of ES '70 Based on Private Funding.

73. Report of Field Visit to Philadelphia 12/68

74. ES '70 News, Vol. 1, No. 7, 2/69

75. ES '70 News, Vol. 1, No. 8, 3/69

76. ES '70 Report - Network Meeting, 3/5-7/69, San Antonio, Texas

77. Field Visits to: Chicago Archdiocese, 3/69
    San Mateo, California, 3/69
    Boulder, Colorado, 3/69
    Duluth, Minnesota, 3/69

78. Memo to Dave Bushnell from L. Rhodes Answering Questions Posed by Dr. Boyan at 2/22/69 Meeting

79. ES '70 for the '70's, A Description and Appendix of Exemplary Programs in the Network School Systems

80. Letter to David Bushnell from Dr. Donahue, Subject: ES '70 Management Techniques Project, 4/8/69

81. Request for Patent of ES '70 Service Mark

82. Memorandum, Agenda and Minutes of Coordinators' Meeting, 3/3-5/69, Houston, Texas

83. Memorandum to ES '70 Board of Directors Re: Management Needs and Considerations

84. Primary Network Innovations, 2nd Annual Report

85. Educational Audit System for ES '70 Network - A Framework for Evaluation, 3/69

86. A Tentative Proposal for a Team Approach to the ES '70 Executive Secretary Function, 4/18/69

87. Minutes of ES '70 Board of Directors Meeting, Washington, D. C., 4/18/69

88. Summary of Points Made by Board of Directors of ES '70 with Dr. Brandl, HEW, 4/17/69

89. ES '70 Local School District Analysis

90. Minutes and Agenda of the Board of Directors Meeting of ES '70, 5/16/69

91.
   a. Report of West Coast Trip, ES '70 General Contracts, 4/28, 5/2, 1969
   b. Visit to Contractor #7-1071, General Programmed Teaching, Palo Alto, California, 5/1/69
   c. Visit to Contractor #7-0109, American Institute of Research, Palo Alto, California, 5/2/69

92. ES '70 Report - Summary of Quarterly Reports, Spring, 1969, No. 9, 5/69

93. Minutes of Office of Education Planning Meeting for ES '70, 5/8/69

94. Draft Copy of Task Force Paper for David Bushnell, 6/24/69

95. The Student-Centered Curriculum: A Concept in Curriculum Innovation, Bruce Tuckman, 5/26/69

96. Article by Bea Brennan and Lewis Rhodes, "Through a Black Box, Dimly", 7/69

97. Letter to Mr. Pruitt re Estimate of Services Needed and Costs for Staff Work for Months of August, September, October, 1969, 7/23/69

98. Memo to Lance Hodes, DCVER/BR, Re: Evaluation of Modern Management Techniques Proposals with Reference to Relevance to Other ES '70 Related Development and Specifically the SDC In-Service Education Contract

99. Research Reports 1 and 2

100. ES '70 News, Vol. 1, No. 9, 4/69

101. ES '70 News, Vol. 2, No. 10, 5,6/69

102. Format for Discussion Groups, ES '70 Network Meeting, Willingboro, New Jersey, 6/69

103. Agenda, ES '70 Willingboro Meeting, 6/67

104. Framework for Discussion, ES '70 Network Meeting, 6/69

105. A Comparison of the Traditional High School with An ES '70 School, 6/69

106. Bruce Tuckman's A Plan for ES '70

107. ES '70 Report No. 10, 7/69

108. Progress Report Secondary School Curriculum Improvement Program, 7/69

109. Tentative Agenda for Board Meeting in Denver, 7/69

110. Memo Re: Meeting with Task Force Consultants at Office of Education

111. Memo Re: Contract Monitoring Status of ES '70, 4/28/69

112. ES '70 News, Vol. 2, No. 11, 9/29

113.	ERIC Research Index Cards
114.	ES '70 Report, A Description and Appendix of Exemplary Programs in the Network School System.
Special Folder	Complete Set of ES '70 News Vol. 1, 1-9 Vol. 2, 10-13
Special Folder	ES '70 Reports, #1 - #10

APPENDIX D

1. Inventory of Materials on Hand
2. Listing of Master Plates and Other Type Materials Which May be Duplicated
3. Listing of Films, Filmstrips, Visual Aid Material
4. Inventory of All Expendable and Non-expendable Items on Hand

Inventory of Material on Hand

1.	Procedural Recommendations for Proposed Policy Statements for ES '70 Primary Network	16 sets
2.	ES '70 Organization Structure Charts	250
3.	Primary Network Innovations (First Annual Report)	72
4.	ES '70 Report No. 4	125
5.	ES '70 Report No. 5	200
6.	Progress Report ES '70 Information System - 9/26/68	75
7.	Outline of Student Personnel Data Forms 11/21/68	125
8.	ES '70 Question and Answer Booklets 5/23/68	75
9.	Charts and Tables Related to the Presentation on the ES '70 Management Information System - 11/21/68	60
10.	Primary Schematic for Network Coordination	125
11.	Guidelines for the Design of an ES '70 Information Processing and Progress Monitoring System - 2/9/68	150
12.	ERIC Bibliography Cards	30 sets
13.	Portfolios for Materials Prepared for ES '70 Program	850
14.	Educational Audit System for ES '70 Network - A Framework for Evaluation	20
15.	PERTs - ES '70 Network Activities	30
16.	Proposed Policy Statements for ES '70 Primary Network	25
17.	Procedural Recommendations Relevant to the Establishment of a Secondary Network	25

18.	Report of ES '70 Network Meeting	10
19.	Primary List of Essential Data for Information System	7
20.	Primary Schematic for Network Coordination, small copy	80
21.	Primary Schematic for Network Coordination, large copy	20
22.	"An Educational System for the '70's", Presented at Aerospace Education Foundation Conference - 9/12/67	10
23.	"An Educational System for the Seventies Booklet	
	1st Edition	18
	2nd Edition	180
24.	ES '70 NEWS	
	No. 1, Vol. 1	1
	2	5
	3	31
	4	21
	5	865
	6	7
	7	16
	8	48
	9	4
	10, Vol. 2	30
	11	476
	12	300
	Special Edition	280
25.	ES '70 Reports	
	No. 1	11
	2	6
	3	1
	4	6
	5	1
	6	2
	7	10
	8	1
	9	2
	10	1

Listing of Master Plates and Other Type Materials which May be Duplicated

A. Addressograph Plates -- Approximately 1100 plates comprising the following categories:

Group I: Superintendents of schools in the participating local districts.

Group II: Coordinators of the ES '70 program in the 19 participating districts.

Group III: The Office of Education's Division of Comprehensive and Vocational Research, Curriculum Advisory Committee.

Group IV: The Office of Education's Division of Comprehensive and Vocational Education Research -- Research Advisory Committee.

Group V: Participants and those invited to attend the New Orleans conference.

Group VI: Chief State School Officers of the 15 states participating in the ES '70 program.

Group VII: Chief State School Officers of the remaining 35 states and the chief school officers of the United States territories outside the United States.

Group VIII: A comprehensive list of those professional, industrial and education association people, among others, who have written either to the U. S. Office of Education, to one of the participating school districts or to E. F. Shelley and Company, Inc., requesting information.

B. Corporate Seal -- Developed and delivered to the Treasurer of ES '70 Corporation.

C. Inventory -- Mechanicals ES '70 News

The following is an inventory of all original Art and Mechanicals for the ES '70 News held in the offices of E. F. Shelley and Company, Inc., New York.

1. Charts and Tables related to the Presentation -- The ES '70 Management Information System 11/21/68
2. Mechanical Appendix A-G ES '70 Audit

3. Original -- Questions and Answers
4. Covers:
    - a. Logo
    - b. Innovations #1 May, 1968
    - c. Educational System for the '70's
    - d. Base Line Data
    - e. Innovations #2 March, 1969
5. Base Line Data Report - San Mateo Conference
6. Cover - Material Prepared for ES '70 Program "Board of Directors" (printed at bottom)
7. "Introduction - An Educational System For The '70's" Booklet - "What is ES '70?" - First Edition
8. Outline of Student Personnel Data Items to be secured and stored in the Central Data Bank for ES '70, 11/21/68
9. Additional mechanicals -- Booklet
10. Original "NEWS" lettering
11. Work Sheets - Technical Questionnaire
12. Progress Report - ES '70 Information System, 9/26/68
13. Three plastic overlays in chart form:
    - a. Organic Curriculum
    - b. Model for a Sub System Instructional
    - c. Plan for Implementation
14. Three Charts:
    - a. Schematic PERT chart for Individual district
    - b. Suggested GANTT chart of selected ES '70 Network Operating Activities
    - c. Schematic PERT chart of ES '70 Network Activities
15. Plastic overlay - PERT Network Activity, November, 1968
16. Thirteen separate packages containing mechanicals for each issue:

Volume #	Issue #	Date	
1	1	May	1968
1	2	June	"
1	3	Sept.	"
1	4	Oct.	"

194.

Volume #	Issue #	Date
1	5	Nov. 1968
1	6	Dec.-Jan. 1969
1	7	February "
1	8	March "
1	9	April "
2	10	May-June "
2	11	Sept. "
2	12	October "

Special Edition (2 pages) 1968

Photographs from the following school districts are in the E. F. Shelley and Company, New York files:

San Mateo, California
Boulder, Colorado
Nova Schools - Ft. Lauderdale, Florida
Atlanta, Georgia
Breathitt County, Kentucky
Quincy, Massachusetts
Monroe, Michigan
Duluth, Minnesota
Mamaroneck, New York
Mineola, New York
Willingboro, New Jersey
Portland, Oregon
Philadelphia, Pennsylvania
Houston, Texas
San Antonio, Texas

Photographs under the following categories are in this file:

1. Partnership for Learning
2. Superintendents and Coordinators
3. National Laboratory for the Advancement of Education
4. Network Meetings

Listing of Films, Filmstrips, Visual Aid Material Developed

1. Aerospace Presentation - Dave Bushnell 9/67

    20 Overhead Visuals - goals and information systems - delivered to OE

    PERT Charts Level I - delivered to OE and schools

2. Revised: 20 Overhead visuals (designed new one) delivered to OE 10/67

    Produced 63 35mm slides - delivered to OE and schools

    Printed 250 each of 5 slides - delivered to OE and schools

3. PERT Charts Level II - delivered to OE and schools 11/67

4. Charts: 2/68

    Schematic PERT - Network - delivered to OE and schools and others

    Schematic PERT - Individual districts delivered to OE and schools and others

    GANTT - delivered to OE and schools and others

    Network Coordination - Schematic PERT delivered to OE and schools and others

5. Plastic Flow Chart - delivered to OE 3/68

    PERT Charts - delivered to OE, schools and others

    Schematic Charts - delivered to OE, schools and others

6. 16 mm film "ES '70" 4/68

7. Revised: PERT Charts and Tables delivered to OE and schools 11/68

    18 Vugraphs - 1 set on hand

    Script, tape, slides (53) for presentation "Partnership for Learning" - 1 set on hand

8.	25 filmstrips copies of "Partnership for Learning" 18 to schools, 3 to OE, 1 on hand, 3 damaged or lost in use	12/68
9.	5 Vugraphs - ES '70 Evaluation 1 set on hand	2/69
10.	Trade mark drawing of ES '70 logo - submitted with application for trade mark	6/69
	19 membership certificate plaques - delivered to schools	
11.	3 Vugraphs for Willingboro Network meeting masters and 2 sets on file at OE	6/69

Inventory of All Expendable and Non-expendable Items on Hand

1.	ES '70 Report Paper (outdated)	500 sheets
2.	ES '70 Blue Folders	850

APPENDIX E

SAMPLES
ES '70 NEWS

EDUCATIONAL SYSTEM FOR THE SEVENTIES
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

ES '70 NEWS

VOLUME 1 – NO. 4 OCTOBER, 1968

ES' 70 COORDINATORS MEET IN BLOOMFIELD HILLS

Coordinators of the 17 ES '70 school districts met in Bloomfield Hills, Michigan, October 7-10 for working sessions focused on the particular responsibilities and roles of the Coordinators in their districts, and on skill development for their tasks. Also participating were Title III project directors for the ES '70 districts.

Dr. Eugene Johnson, Superintendent of Schools, and Dr. Robert Boston, ES '70 Coordinator, Bloomfield Hills, were hosts. Eliot Spack, ES '70 Coordinator, Mineola, N.Y., chairman of the Coordinators group, served as chairman for the meeting.

Participants observed the Bloomfield Hills curriculum development project, reviewed the occupational study being undertaken at the Ohio State Research and Development Center. They tackled problems of assessment of learning styles and self-instruction, and of in-service materials related to developing performance objectives and using educational technology.

The Coordinator's role as change agent was explored in depth. Discussion centered on factors involved in creating a climate for change, developing schedules, and projections for ES '70. ES '70 PERT schedules were reviewed so that Coordinators became familiar with the nation-wide progress and timing of various aspects of the total ES '70 program.

Dr. Johnson reported the acceptance by the ES '70 Executive Committee of the "Statement of Functions for Coordinators" that had been drafted prior to the Executive Committee meeting in Chicago, September 27. The Executive Committee at that meeting had "commended the Coordinators for the interest and zeal with which they were carrying forward their responsibilities."

DR. NORMAN BOYAN APPOINTED TO HEAD USOE RESEARCH BUREAU

Dr. Norman J. Boyan has been appointed Acting Associate Commissioner of Research in the U.S. Office of Education. Announcing the appointment, Dr. Harold Howe, II, U.S. Commissioner of Education, said of Dr. Boyan: "His broad experience in public and private school work, as a faculty member at Stanford University and the University of Wisconsin, and for the past year in the U.S. Office of Education, ideally equips him to take responsibility for directing the Bureau of Research. We expect the Bureau to continue its leadership in sponsoring major programs of educational research and development. Dr. Boyan will continue to have the able assistance of Dr. David Pollen, the present Deputy Associate Commissioner of Research, and a cadre of experienced division directors."

Dr. Boyan is on leave from the School of Education, Stanford University, California. A member of Phi Beta Kappa, he holds degrees from Bates College and Harvard University. He has published widely in the professional literature on subjects relating to educational research and administration.

Dr. Boyan

Dr. Boyan had been the Director of the Division of Education Laboratories in the Bureau of Research since May 1967. There he had responsibility for the development of 20 regional laboratories and nine university research and development centers throughout the nation. He has been replaced in that office by Dr. Howard Hjelm. Previous Director of the Bureau of Research was Dr. R. Louis Bright, now at Baylor University, Texas.

IMPORTANT NETWORK MEETINGS APPROACHING: November will see two important meetings for the ES '70 network in Washington, D.C. "Individualized Learning for the Inner City" will be the focus of the meetings presented by the Aerospace Education Foundation in cooperation with the U.S. Office of Education, November 18-20, Washington Hilton Hotel. A major meeting of the ES '70 network will follow on November 21, also at the Hilton.

NEWS FROM

Duluth, Minnesota

Willingboro, New Jersey

PORTLAND, OREGON PLANS MODEL SCHOOL

Dr. Melvin Barnes

When the Portland, Oregon school district opens the doors of its ES '70 John Adams High School in September of 1969, students and teachers will find themselves in a facility specifically designed and organized to function as a clinical high school, analagous in concept to a teaching hospital. Here the instruction of students, pre-service and in-service teacher education, basic and applied research, and the development of new curriculum materials will take place under one roof.

To create this new kind of institution, a special planning committee began work in August. Glenn Hill, ES '70 Coordinator in Portland, is a member of this group which is responsible for recruiting faculty, developing the broad outlines of the educational program and creating the organizational structure which will integrate training, research and development with the wide range of activities contemplated in the new comprehensive high school.

HARVARD SPURS CLINICAL CONCEPT

The concept of a clinical high school which could provide a model for bridging the gap between the traditional organization of a school of education and the mode of operation of a public school system, emerged from discussions by a group of secondary school teachers working for their doctorates at Harvard Graduate School of Education in 1967. With the help of Dean Theodore Sizer and several Harvard faculty members, the proposal was circulated to school superintendents and deans of schools of education throughout the country.

Under the leadership of Dr. Melvin Barnes and the Portland Board of Education, Portland had already begun construction on a new high school designed to be a center of curricular innovation with its ES '70 goals similar to those expressed by the Harvard group. Following talks with representatives from five interested cities, Portland, Oregon was selected as the community where the proposal had the greatest chance of realization.

Portland State and Reed Colleges have agreed to offer joint appointments to senior members of the clinical school faculty. Other metropolitan colleges in the district have expressed keen interest in participating in the project, thus carrying forward the initial Harvard conception that the group members would hold University appointments, but would fulfill most of their teaching and research duties within the school setting.

DIVERSE POPULATION

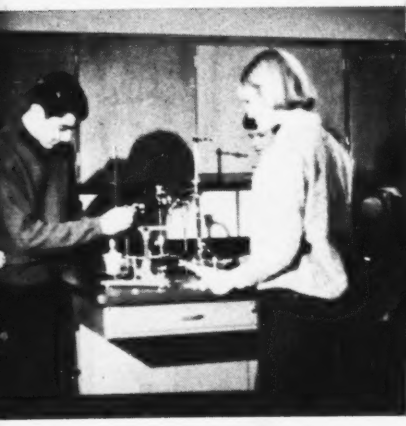
John Adams High School will open in 1969 with approximately 1000 students. Although a district high school, it will draw its students from several quite diverse kinds of neighborhoods, the majority coming from working class and middle class families. The school will have substantial vocational education facilities, for only a third of its students might be expected to go on to some form of higher education. Approximately twenty percent of the student body is expected to be Negro. Since Adams High will be a comprehensive school with a representative cross-section of Portland's secondary school students, it is hoped that innovative patterns of staff utilization, personnel training, and curriculum development that emerge from Adams will be relevant for many other schools and communities.

At the present time, we plan to subdivide Adams High School into four houses, each containing 250 randomly assigned students. Each house will contain a guidance counselor, a guidance intern, and an administrative aide. The instructional staff of the house will be comprised of two interdisciplinary teams of teachers led by a curriculum associate. The first will contain teachers in English, social studies, and the arts; the second, teachers in mathematics, science, home economics, business education, and industrial arts. One teacher on each team will be designated as leader and each team will have assigned to it one intern, one student teacher, and one aide. These two teams will design, implement, and evaluate an instructional program for their house. Every student at Adams will spend approximately half of his school day in such a house program.

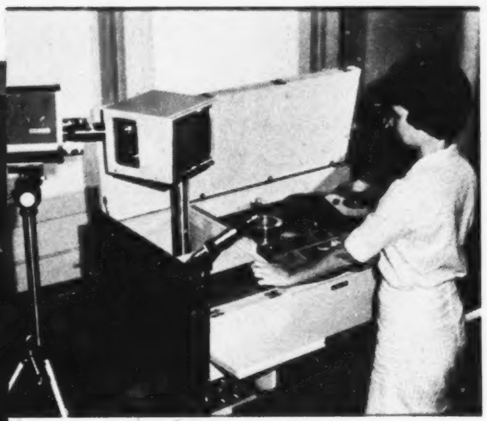
CREDIT FOR OUTSIDE WORK

The other half of the day teachers and students will be free to devise as broad a range of educational experiences as their imaginations allow. This part of the curriculum will be completely elective and largely individualized, and courses will be of variable size and length. All faculty members (including interns and student teachers) will be encouraged to offer their own electives, and there will also be provision for student initiated courses. In addition to those courses taking place inside the school, an attempt will be made to find many different kinds of learning situations in the community in which students might be able to participate. These might range from work on a political campaign, to tutoring elementary school children, to a paid apprenticeship experience. All of these activities will take place under the sponsorship of the school, will carry school credit with them, and will be supervised by someone whom the school will designate Associate in Education. The students will enter into these experiences on an informal contract basis, committing themselves to a certain number of hours of work and then evaluating their performance upon completion of the contract. Students will meet periodically with their faculty advisors to discuss these independent experiences and to decide what kinds of future

E NETWORK



Bloomfield Hills, Michigan



Atlanta, Georgia

activities might make the most sense.

Our primary curricular objective at Adams High School will be to design an educational program that is relevant to the needs and interests of adolescents, especially those who are not headed for further education. We want to break down the walls between the disciplines and develop problem-centered inter-disciplinary courses; we want to widen considerably the range of courses of experiences that students can choose; and we want to provide more opportunity for students to explore adult roles and to familiarize themselves with the world of work.

BROAD STUDENT PARTICIPATION

We also intend to create a democratic sense of community within the school. This means that we want to eliminate the kind of tracking system which separates academic from vocational students, to involve students in planning their own education, to enable students to take increasing responsibility for the way they allot their time, and to create a school climate in which each student can feel free to develop in his own way and at his own pace. Finally, we want to involve the students in the life of the community as much as possible, which will mean devising new ways of using the physical and cultural resources of the city for instructional purposes, as well as bringing creative adults from all walks of life into the school and to work with groups of students on a part-time basis.

Glenn Hill, ES '70 Coordinator

BREATHITT COUNTY

Morehead State University, in cooperation with the ES 70 project, recently hosted a two day meeting to formulate an in-service course for Breathitt County High School teachers entitled, "Introduction to Behavioral Objectives in Curriculum Design." The course is now being conducted by an inter-university staff from Morehead, the University of Kentucky and Eastern Kentucky University; 90% of the faculty attend on a volunteer basis. A selected group will continue after the introductory course for intensified in-depth education and experience in the writing of behavioral objectives.

The first stage of writing for the ES '70 curriculum will begin with the new science curriculum, according to Coordinator William N. Ryan. The basic guide and text for the course is the Washington State University-Bellevue Project Research Report. Supplemental materials come from West Virginia University where courses are being taught in the writing, evaluation and implementation of behavioral objectives.

Breathitt County also reports progress in the development of a design for a computer system that will be in use in their high school. Data processing programs are being developed and instituted that will be suitable for integration into a total system that will use a computer for keeping cumulative student records, for flexible scheduling of student space and teachers on a day to day basis, for individual computer-assisted instruction and other relevant and appropriate computer uses.

PHILADELPHIA

Coordinator George Love reports ground was broken October 1 for the University City High School, a facility designed to house the educational ideas of the ES '70 program. Arranged according to the "House Plan", the school will contain effective homerooms, multi-purpose shops and laboratories, and the special facilities needed to make it a "magnet center" in Philadelphia for mathematics and science. To insure the achievement of the ES '70 objectives, the planners called on the services of experts from the business community, faculties of nearby universities and colleges, and a special consultant in science from the State University of New York.

NEW DISTRICT APPOINTMENTS

San Mateo Union High School District, California, announces the appointment of DR. A. HUGH LIVINGSTON to replace Dr. Leon Lessinger as Superintendent. Dr. Livingston comes to San Mateo from Springfield, Illinois where he was Superintendent of Schools.

Mamaroneck, N.Y. announces the appointment of FRANK CASSETTA as coordinator for ES '70, replacing Ernest Knobloch whose promotion to house principal was reported last month.

ES '70 NEWS

ES '70 NEWS is published at regular intervals during the school year to keep readers up to date on current ES '70 activities and progress. Examples of representative activities are reported in each issue.

ES '70 NEWS is prepared under the supervision of the ES '70 Executive Committee by E. F. Shelley and Company, Inc. Additional copies may be secured from E. F. Shelley and Company, 866 United Nations Plaza, New York, New York 10017.

CURRICULUM ADVISORY COMMITTEE

The Curriculum Advisory Committee for the Division of Comprehensive and Vocational Education Research, USOE, representing specialists from universities, state and federal agencies, professional and lay organizations met in San Francisco, September 3 and 4.

According to Mr. David Bushnell, Director DCVER, the function of the advisory group is twofold: to review DCVER strategies for implementing the substantive elements of the ES '70 program; to serve as a communication link with professional institutions and organizations as feedback to those involved with education research.

At the September meeting, the Committee heard Dr. Sam Messick, Vice President for Research, Educational Testing Service, discuss "Individual Assessment and Cognitive Styles." He was joined in discussion by Dr. William Turnbull, ETS Executive Vice President. "Guidance System Designs and Their Application to ES 70 Schools" was discussed by Dr. Henry Borow, Professor of Psychological Studies, University of Minnesota, assisted by panelists Dr. John Kromboltz, Stanford University, Dr. John Flanagan, American Institute for Research and Dr. Murray Tondow, Palo Alto Unified School District.

"An Empirical Approach to the Identification of Occupational Concepts and Structure" was presented by Dr. Jerome Moss, Professor, Department of Industrial Education, Mr. Brandon Smith and Dr. David Pucel, all of the University of Minnesota.

"A Strategy for the Use of Advisory Task Force Groups in Planning and Monitoring ES '70 Projects" was proposed by Dr. Ronald Lippitt, University of Michigan and Dr. Robert Morgan, Florida State University. They proposed establishing program area advisory groups in the following categories: education personnel, career guidance, educational objectives, curriculum model development, computer applications, administration and school management, diffusion, student certification, and evaluation.

This proposal is now being considered by the ES '70 Executive Committee.

EXECUTIVE COMMITTEE

The Executive Committee of ES '70, under the chairmanship of Dr. Ben Wallace, met in Chicago, Illinois on September 28 and is meeting there again on October 25 to hear reports on the current status of ES '70 programs throughout the country and to prepare for the general meeting of the network to be held in Washington, November 21.

David Bushnell reported from USOE on program development projects, funded and pending. A statement of functions for coordinators was prepared and approved, and a resolution commending the coordinators for their part in carrying forward the ES '70 program was adopted.

The resignation of Dr. Melvin Barnes from the Executive Committee was received. Recommendations for filling two vacancies on the Executive Committee and for the naming of a chairman-elect will be submitted to the network in November.

Because the accelerrated pace of the ES '70 program has increased the number of matters coming before the Executive Committee, they have agreed to meet monthly hereafter.

FOR YOUR FILES

ES '70 DOCUMENTS, FILM:

Information on availability of reports, films, booklets may be obtained from: E. F. Shelley and Company, Inc., 866 United Nations Plaza, New York City 10017.

ES '70 CALENDAR – 1968-69

November 18-20 – Aerospace Education Foundation Meeting, Washington, D.C.
November 21 – ES '70 Network Meeting, Washington, D.C.
March 5-7, 1969 – ES '70 Network Meeting, San Antonio, Texas
June 26-27 – ES '70 Network Meeting, Quincy, Massachusetts.

Executive Committee meets monthly.

EDUCATIONAL SYSTEM FOR THE SEVENTIES
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

ES '70 NEWS

VOLUME 1 — NO. 5

NOVEMBER, 1968

"INDIVIDUALIZED LEARNING FOR INNER CITY" FOCUS OF AEROSPACE EDUCATION FOUNDATION MEETINGS

"Individualized Learning in the Inner City" will be the focus of the National Laboratory for the Advancement of Education being presented in Washington, D.C., by the Aerospace Education Foundation in cooperation with the U.S. Office of Education, November 18, 19, 20, 1968.

The National Laboratory has been created by the Aerospace Education Foundation as a new medium of communication to demonstrate, analyze and evaluate the nation's most outstanding examples of innovative classroom projects. Attending the conference will be approximately 3000 representatives of organizations concerned with the growing need for new educational resources. The District of Columbia school system is selecting 500 of its administrators and teachers to attend.

The invitational meetings are designed to bring together a carefully selected cross-section of educators, government officials, civic leaders, and industrial executives.

In addition to having the opportunity to share actual classroom experience with teachers who have provided effective changes in the learning process through innovative concepts and techniques, participants will discuss and evaluate the major elements of individualized learning at a Seminar scheduled over the three-day period.

A conveniently located exposition of industry displays and demonstrations of products and services complementing the subject areas covered in the Classroom Demonstration and Seminar sessions will also be featured.

Talk-Back sessions are scheduled for each evening of the conference so that all participants can engage in discussion with the principals who have made presentations and reports, or with industry representatives.

The program of Classroom Demonstrations, which features several of the ES '70 district schools, follows: *Preschool: Learning to Learn,* Washington, D.C.; *Individualizing in*

(continued on back page)

AGENDA ANNOUNCED FOR NETWORK

Current reports on all phases of the ES '70 program will be made to the Superintendents of Schools and Coordinators who assemble in Washington, D.C., on November 21 for the next general meeting of the ES '70 primary network.

Dr. Norman J. Boyan, acting Director of the U.S. Office of Education's Bureau of Research, will meet formally with the group for the first time since his appointment to his new post. Dr. Boyan will bring the greetings of the USOE and comment on the objectives and progress of the program.

David Bushnell, Director of the USOE Division of Comprehensive and Vocational Education Research, will detail the current status of all Secondary School Curriculum Improve-

(continued on back page)

ROBERT E. PRUITT APPOINTED DEPUTY DIRECTOR, DCVER

Robert E. Pruitt

Robert E. Pruitt has resigned the superintendency at Quincy, Massachusetts to accept appointment as Chief of the Instructional Materials and Practices Branch in the Division of Comprehensive and Vocational Education Research. In addition, he will also serve as Deputy Director of the Division, according to the announcement of his appointment by the U.S. Office of Education's Bureau of Research.

The Massachusetts educator, who assumed his new duties in Washington this month, will be responsible with David Bushnell, Director DCVER, for the USOE program aimed at providing for improved secondary curriculum and computer-managed instructional programs, including those activities relevant to ES '70.

Mr. Pruitt, an original member of the ES '70 network, served as Quincy superintendent for five years. In that community of 90,000 he was responsible for a school program that included 16,000 students K-12, and a municipal junior college with an enrollment of 1700 full and part-time students.

He was previously Assistant Professor at the Graduate School of Education of the University of Chicago, where he also served for one year as Associate Director of its Laboratory School. In his earlier tenure as Superintendent of Schools for seven years in Forest Park, Illinois, he was responsible for major modernization of school facilities. He has been a classroom teacher and high school principal as well.

204.

NEWS FROM THE NETWORK

MONROE, MICHIGAN

Coordinator William Hetrick has assembled the materials which report how each step was taken in this community to develop the educational specifications and to plan and design its proposed new high school. Superintendent Harold Rapson, in the May issue of ES '70 NEWS, described the visits being made to ten exemplary secondary schools across the country by specially designated teams which included a Monroe administrator, two teachers, an educational consultant and an architect's representative. A slide presentation report of these visits has been prepared. The reactions of the teams to their out-of-state visits were included in the 179 page volume of specifications submitted to the architects.

Describing "tomorrow's school today," they showed it to be learner-centered, providing each student with the specific blend of academic and vocational training he would need to grow at his own pace to full capacity. In recommending provisions for new educational technologies in Monroe, the group was deliberately selective and eclectic in its approach. Their aim was to combine the best in the traditional high school structures with those innovations which they had seen to be superior.

They report "first hand visitations also demonstrated to them how learning is enhanced by such aesthetic factors as the use of attractive and varied colors, carpeting, quality finishes, and artistic landscaping." These, as well as the flexible use of space for large and small group interaction, with an adequate number of closed classrooms to insure noise-free learning areas, were seen to provide a "genuinely warm, attractive, and interesting environment in which students and faculty could interact."

(A report of the team impressions of innovative curriculum staffing and administrative practices found in the schools visited appears in a paper entitled, "Impressions," by Dr. Ray E. Kehoe, Bureau of School Services, University of Michigan. This paper is available on request.)

SAN ANTONIO, TEXAS

With the assistance of volunteer teachers of the ES '70 school, Memorial High School, plans are being made for a new night program for ES '70 students, called the Lighthouse Program. The school library will remain open every night from 7:00 p.m. to 9:00 p.m. staffed with three tutor-counselors and one librarian. All students are invited to participate. No formal classes will be held. Self-study guides in math, science, language arts and social studies will be provided so that students may study at their own rates of speed. Science rooms will be open for students' use. According to Coordinator Lucille Santos, the tutor-counselors will be available to assist students in their work or to just talk with them. SRA Career Kits are being ordered for this program.

ES '70 NEWS

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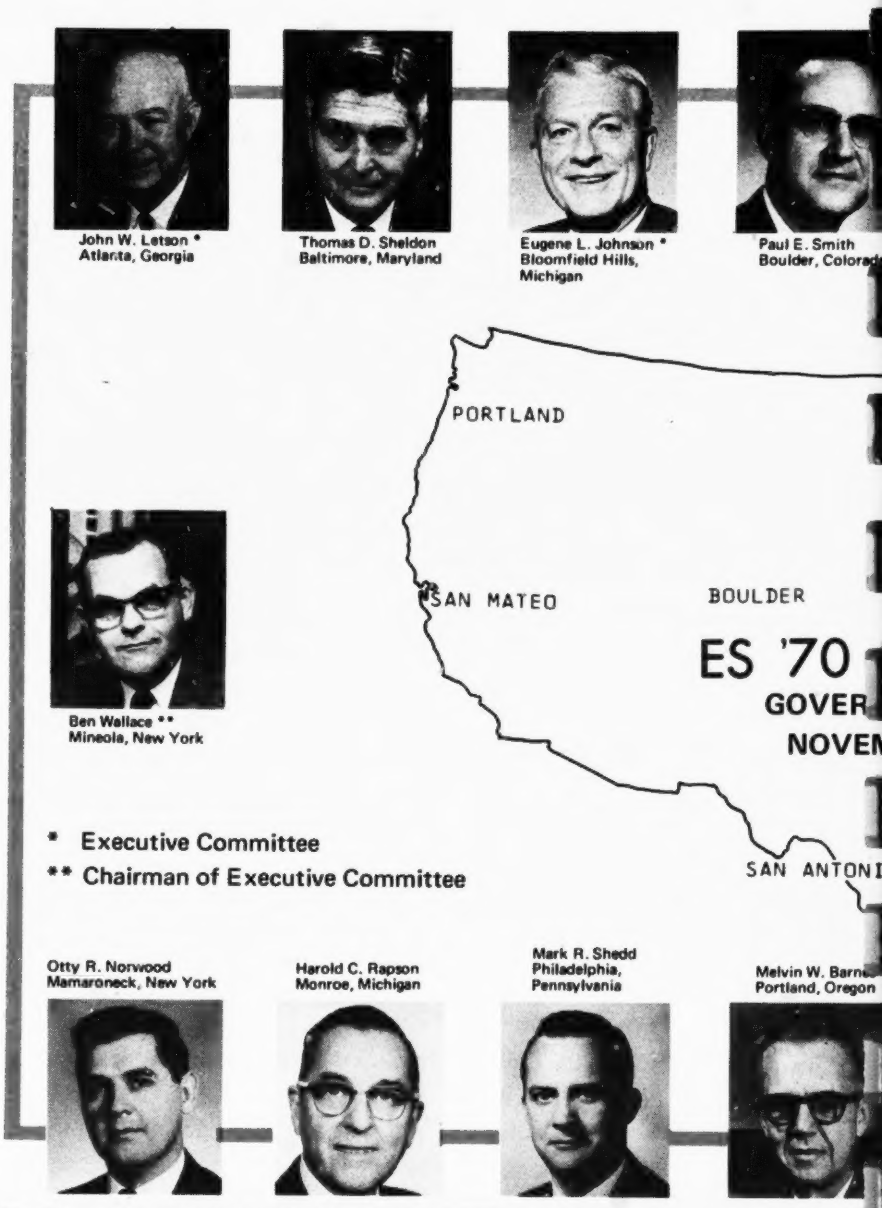

QUINCY, MASSACHUSETTS INVOLVES ST

Q-PED – Quincy Project in Educational Development – for the last three years has involved more than 70% of the 800 member professional staff in activities that have ranged from one-day in-service released time workshops, to a five-week summer dialogue session for teachers and students. Under the leadership of then Superintendent Robert E. Pruitt, and the Quincy Education Association's John A. Osterman, the program was begun in 1965 with its single aim to establish a climate for meaningful change within the school system.

They undertook the task of equipping teachers to deal with change so that they could better educate young people to live and work in a society characterized by change. Participating teachers have been drawn from throughout the system at all grade levels and subject areas.

The most recent undertaking was a five-week summer institute which involved students as well as teachers. Twenty young people and 45 teachers from Broad Meadows Junior High School came together and worked on ways to establish a climate of change that would lead to a more relevant curriculum for the 800 students attending their school and to a broader base for decision making.

The initial concerns of the teachers were to update learning theory, diagnose learning difficulties, individualize learning materials and become more familiar with the use of new learning equipment. The task of the youngsters was to help set up communications between the teachers and themselves.

A careful plan resulted in a schedule that provided time for the teachers and students to work separately and together so that the "feedback" essential to building good communica-

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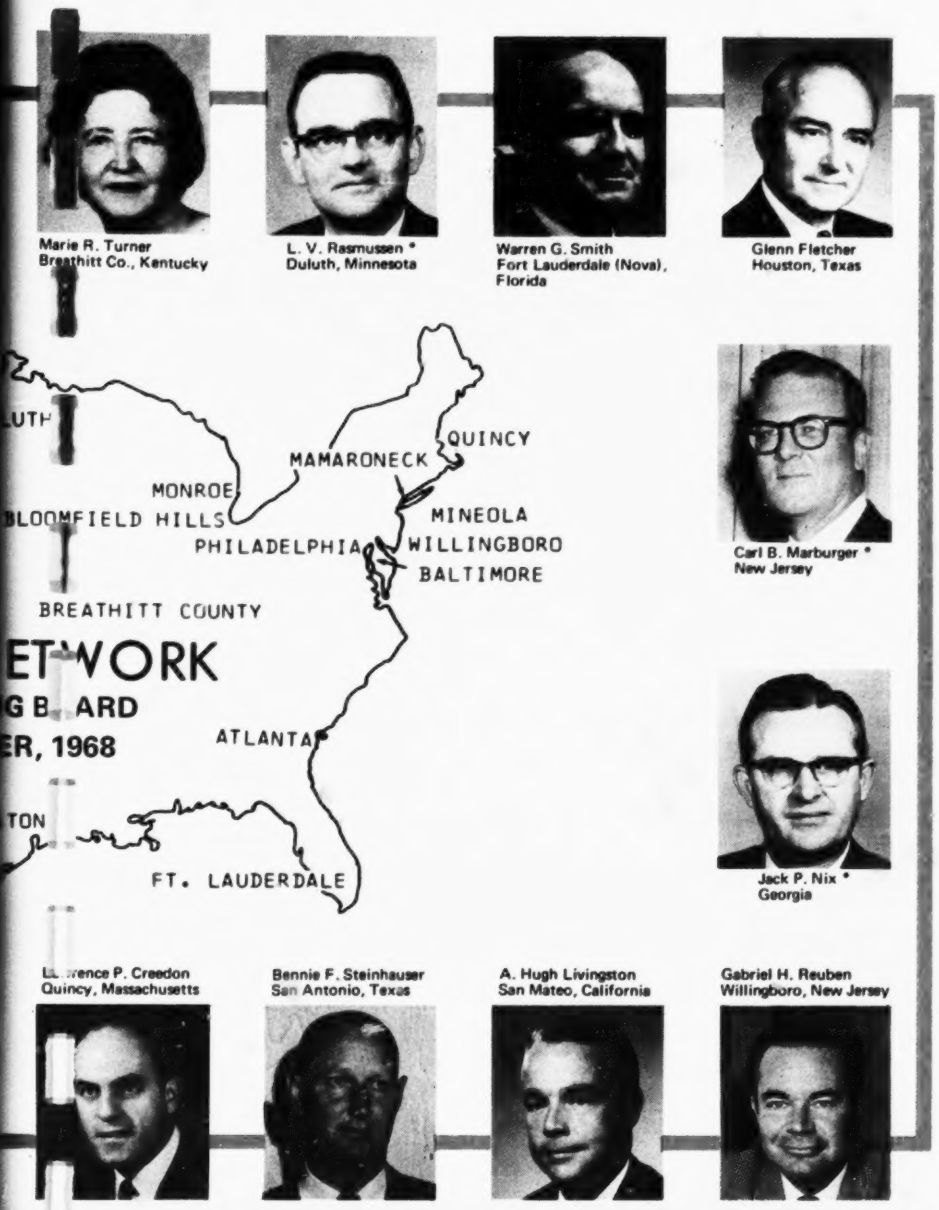

NTS IN SUMMER INSTITUTE WITH TEACHERS

tions could be achieved, and a level of trust established that would permit specific projects to be carried forward.

ES '70 Coordinator Lawrence Creedon, writing with Quincy Language Arts and Social Studies Coordinator Carl R. Deyeso, has stated: "At the end of the second week, it became evident that the teachers were anxious to take more active roles in decision making and the children thrilled at the informal invitations to do the same. Both groups had suspicions that this was an academic exercise, but one of the most significant outcomes of the entire summer was the manner in which group decision making was studied, tried, accepted, evaluated, and adopted as a temporary mode of operation. All seemed to recognize the artificial situation of an isolated summer institute, run on an informal basis, as opposed to the formal school setting they would be facing in the fall. Nevertheless, there was consensus that this should be tried further, that the principal should be invited in, and that the extent to which such a thing could happen would have to be determined."

By the end of the fifth week, the participants strongly felt the need to extend their summer effort into the school year. For that purpose Quincy reserved the first three days of school at Broad Meadows as a "Tuning-In Time" for the rest of the staff and the student body. Dr. Creedon and Mr. Deyeso report: "The staff, with the aid of the students, planned this event and then sketched out their involvement for the remainder of the year by translating the concerns they had at the beginning of the institute into specific projects."

(A detailed institute report by Dr. Creedon and Mr. Deyeso is available on request.)

NATIONAL LAB FEATURES ES '70 SCHOOLS

DULUTH, MINNESOTA

Dr. L. V. Rasmussen, Superintendent of Schools, and John Muldoon, ES '70 Coordinator, in Duluth report that the Duluth school system will present one of the classroom demonstrations at the National Laboratory for the Advancement of Education presented by the Aerospace Education Foundation in Washington, D. C.

Duluth's demonstration, which will center on individualized instruction at the elementary level, will be arranged to simulate as closely as possible the flexibility of grouping and the mobility of students which are key features of the Duluth projects. Observers will see the self-pacing of students through group and individual learning experiences, following individually assigned contracts. Strong emphasis will be placed on instructional objectives expressed in the terms of observable behavior as the key element in the contracts with which the students will be working. The components simulated are closely related to many of the goals of the ES '70 Project.

A team of three teachers — June Brieski, Dale Koch, and Bob Placheki — and one director-narrator — Herb Taylor — will work with twenty children from the Washington, D. C. school system. The demonstration will be run three times each day.

Duluth school officials believe the National Laboratory, as a new medium of communication, will offer a rare opportunity for the advancement of education as well as the advancement of the goals of the ES '70 Project.

SAN MATEO, CALIFORNIA

The film "LSD — 25", produced by Dr. Leon Lessinger during his tenure as Superintendent of Schools in San Mateo Union High School District in California, will be the focus of the San Mateo demonstration at the National Laboratory for the Advancement of Education in Washington, D.C. Copies of this film, one of three in a trilogy, have already been requested by more than 200 school districts throughout the nation to be used for teaching purposes.

A second film, "Journey to Nowhere", a 23-minute documentary of one girl's experience with drugs, has now been completed. According to Charles Mink, ES '70 Coordinator in San Mateo, a programmed learning package for twelve student hours of work has been prepared as a correlary to the new film. This package include audio-taped interviews with parents, psychiatrists, policemen and other members of the community, and various students' responses to the interviews. Slides, relevant printed materials and a teachers' guide complete the package which is aimed at affective rather than cognitive changes.

Demonstrating the specimen lessons in Washington will be Albert Mayrhofer of the San Mateo school district. He will work with 30 young people from the Capitol schools during the three-day conference. San Mateo's innovative educational campaign against drug abuse will be discussed during the talk-back sessions.

(A special edition of ES '70 NEWS has been prepared to present an overview of the ES '70 program. Copies may be secured from E. F. Shelley & Company, Inc., New York.)

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FOR YOUR FILES

ES '70 DOCUMENTS, FILM:

Information on availability of reports, films, booklets may be obtained from: E. F. Shelley and Company, Inc., 866 United Nations Plaza, New York City 10017.

ES '70 CALENDAR – 1968-69

November 18-20 – Aerospace Education Foundation Meeting, Washington, D. C.
November 21 – ES '70 Network Meeting, Washington, D.C.
March 5-7, 1969 – ES '70 Network Meeting, San Antonio, Texas
June 26-27 – ES '70 Network Meeting, Quincy, Massachusetts.

Executive Committee meets monthly.

AGENDA ANNOUNCED FOR NETWORK *(continued)*

ment Program funded projects and describe the substance of each of these for the participants. He will also discuss pending programs.

Dr. E. Grant Venn, Associate Commissioner of the Bureau of Adult, Vocational and Library Programs, USOE, will comment on Title III Exemplary Programs.

Dr. Ben Wallace, Chairman of the Executive Committee for the ES '70 network, will chair the sessions and present the report of the Executive Committee. The Superintendents will elect two new members to the Executive Committee, designate a chairman-elect, and consider the addition of new members to the network. Time will be scheduled for reactions to the Aerospace Education Foundation meetings.

A report on the development of the ES '70 Information System will be given by E. F. Shelley & Co., Inc. Eliot J. Spack, Chairman of the Coordinators in the network, will report on the recent Coordinators' workshop held in Bloomfield Hills, Michigan.

"INDIVIDUALIZED LEARNING" MEETINGS *(continued)*

Elementary, Duluth, Minn.; *High School Work and Learn,* Patterson High School, Dayton, Ohio; *LSD: The Trip Back,* San Mateo Union High School District, Calif.; *College Without Classrooms,* Oakland Community College, Detroit, Mich.; *Sex Education,* Dr. John Gagnon, University of Indiana; *Self-Pacing Vocational Skills,* Air Training Command, Randolph Air Force Base, Texas; *Computer Managed Instruction,* New York Institute of Technology, Old Westbury, N.Y.; *Strategy for Teacher Training,* Pennsylvania Advancement School, Philadelphia, Pa.; *Education in the Factory*, MIND, Inc.

The Aerospace Education Foundation is a nonprofit organization dedicated to educational, scientific, and charitable purposes; it is supported by the Air Force Association.

The Foundation takes a basic interest in the educational significance of the vast research, development and operational experience underlying the advancement of air travel and space flight.

Currently the Foundation is pioneering in the organized adaptation of advanced Air Force course materials for use in public school systems.

The governing body of the Foundation, the Board of Trustees, represents the purposeful combination of educators, industrial executives, and professional men, most of them with personal experience in the movement of aerospace technology.

Dr. Leon Lessinger is General Chairman of the Foundation whose Executive Director is James H. Straubel. Managing Director is Michael J. Nisos. Dr. Walter J. Hesse, Dallas, Texas, is Chairman of the Board of Trustees.

ES '70 ROSTER CHANGES

Dr. Lawrence P. Creedon has been appointed Acting Superintendent of Schools in Quincy, Massachusetts, effective November 1, 1968. Dr. Creedon has been Assistant Superintendent for Instruction in Quincy, as well as the ES '70 Coordinator in that district. An Acting Coordinator has not yet been designated.

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EDUCATIONAL SYSTEM FOR THE SEVENTIES
ES '70
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

NEWS

SPECIAL EDITION 1968

WHAT IS ES '70?

In May 1967 the ES '70 network was formed to devise and execute a program for the development of a new comprehensive secondary school curriculum and organization

——providing an individualized education for each student
——highly relevant to the adult roles which he will play
——economically practical within available public resources
——based on behavioral and related sciences
——employing suitable systems of school organization
——utilizing appropriate educationally oriented technology
——locally planned and directed
——state supervised, nationally coordinated
——financed by federal, state and local funds
——designed for ultimate availability to all school systems.

ES '70 SCHOOLS – The cooperating school systems represent old, new, small, and large communities, national geographic distribution, diverse cultural mixes and varying levels of community educational financial support from the poorest to the very wealthy. The districts range in population from 28,300 to 2,152,000. The combined student population of the 17 participating districts approximates 1.3 million students. 37% of the youngsters in these schools are from families with annual incomes below $5000.

HOW THE NETWORK IS ORGANIZED

Seventeen public school districts in fourteen states constitute the primary network of participating schools for the ES '70 research and demonstration program to improve the secondary school curriculum and school organization.

A formal organization to guide the project has been established by these districts, which are represented on the Governing Board by their superintendents. Members of the Governing Board also include designated Chief State School Officers of the member states, and representatives ex-officio of the U.S. Office of Education.

According to the policies and procedures adopted by the Superintendents of the 17 participating local school districts, the Executive Committee consists of 6 superintendents of the local districts, elected by the Governing Board, two Chief State School Officers designated from among the 14 states represented in the network, and two representatives of the U.S. Office of Education appointed by the Commissioner of Education who are non-voting ex-officio members. The chairman elected by the Executive Committee serves as general chairman for the network.

Each of the districts has appointed a Coordinator to be responsible within his district for all activities relating to the ES '70 program. The Coordinators designate their own chairman for liaison with the Executive Committee.

COMMENTS ON ES '70

"The local school district represents the keystone and the ultimate site in which the wares of ES '70 productivity will be displayed. It is the final demonstration center for the proof that a dynamic local, state, federal, higher education and industry relationship may exist." *Dr. Ben Wallace, Chairman, ES '70 Executive Committee, Superintendent of Schools, Mineola, New York.*

"A unique partnership of local, state, and federal agencies, cooperating with institutions of higher learning, professional associations, and lay organizations, is making a concentrated effort to improve our secondary school curriculum. This attempt to meet a critical need is evidence of the commitment of American education to our young people." Dr. Jack P. Nix, State Superintendent of Schools, Georgia.

"It is my judgement that the project can and should be regarded as a welcome opportunity for the States to develop a greater capacity to accelerate their own curriculum development programs, and to extend their quality. ES '70 can thus positively reinforce existing curriculum development in the States." *Dr. Carl B. Marburger, Commissioner of Education, State of New Jersey.*

"Briefly, we can regard the development of the curriculum as having three main thrusts: the development and definition of educational objectives, the initial development of multi-media learning modules to implement these objectives, and the validation and modification of learning modules for eventual replication with adaptations tailored to the needs of the school districts throughout the country." David S. Bushnell, U.S. Office of Education.

ES '70 NEWS

ES '70 NEWS is published at regular intervals during the school year to keep readers up to date on current ES '70 activities and progress. Examples of representative activities are reported in each issue. This special edition has been prepared to present an overview of the program.

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ES '70 PARTICIPATING DISTRICTS

Atlanta, Georgia
Baltimore, Maryland
Bloomfield Hills, Michigan
Breathitt County, Kentucky
Boulder, Colorado
Duluth, Minnesota
Ft. Lauderdale (Nova), Florida
Houston, Texas
Mamaroneck, New York
Mineola, New York
Monroe, Michigan
Philadelphia, Pennsylvania
Portland, Oregon
Quincy, Massachusetts
San Antonio, Texas
San Mateo, California
Willingboro, New Jersey

ELEMENTS OF THE ES '70 PROGRAM OUTLINED

ES '70 is a research and demonstration program, representing a broad scope of activity that cuts across every aspect of education.

It involves the development of an improved secondary school curriculum designed to present individual school districts with a wide variety of alternatives in providing their own secondary school students with an individualized and relevant secondary education at a feasible cost.

Four main categories of activity comprise the substance of the current effort:

A. Staff Development
  1. Professional Pre-Service
  2. Professional In-Service
  3. Non-Educational Professional Utilization
  4. Sub-Professionals

B. Instructional Management and Career Guidance
  1. Educational Objectives
  2. Cluster Arrangements of Vocational Careers
  3. Curriculum Development
  4. Instructional Material
  5. Instructional and Learning Media
  6. Modular Scheduling
  7. Individualized Instruction
  8. Guidance Progress and Procedures
  9. Reduction of failures

C. School Management
  1. Staff Utilization
  2. Information Handling
  3. Increased Efficiency in Communication
  4. Simulated Decision-Making in On-Line Situations
  5. Scheduling Progress, and Accounting for Pupils
  6. Budgeting Fiscal Accounting, Personnel Records
  7. Modification of Existing Plant
  8. New Structures

D. Evaluation
  1. Student Assessment
  2. School Accreditation
  3. Use of Data Processing in Evaluation
  4. Student Certification
  5. General Evaluation of Educational Progress

EDUCATIONAL SYSTEM FOR THE SEVENTIES • A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

ES '70

NEWS

VOLUME 1 – NO. 6

DECEMBER, 1968 – JANUARY, 1969

TWO CHICAGO SCHOOLS JOIN ES '70; FALL MEETING FOCUSES ON ORGANIZATION, INFORMATION SYSTEM

Superintendents and Coordinators of ES '70 school districts welcomed the Chicago Archdiocese School Board as the eighteenth member of the primary network at the November meeting of the ES '70 Governing Board in Washington, D. C. This is the first non-public school district to participate in the coordinated nation-wide effort to improve secondary school curriculum and organization. Its inclusion was recommended by the ES '70 Executive Committee as exemplary of the private school sector.

Gabriel Reuben, Superintendent of Schools, Willingboro, New Jersey and Dr. A. Hugh Livingston, new Superintendent of the San Mateo Union High School District, California, were elected to fill vacancies on the Executive Committee.

Dr. Ben Wallace, Superintendent of Schools, Mineola, N.Y., and Chairman of the ES '70 Executive Committee, reviewed recent activities of the network for the Governing Board. Consideration was given to organizational details of the network operation as well as to the substantive reports on the progress of the overall effort.

David S. Bushnell, Director, Division of Comprehensive and Vocational Education Research, ex-officio member of the Governing Board representing the U.S. Office of Education, reported on his office's ES '70 activities. He also discussed with the participants efforts to refine techniques to develop and implement performance objectives. Researchers will be brought together for a conference on this aspect of the ES '70 program shortly.

Robert Pruitt, now Deputy Director DCVER, discussing

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ANNAPOLIS PROGRAM PROVIDES ES '70 MODELS IN 'HARD' AND 'SOFT' SCIENCES

The development of three one-semester college courses, in physics, economics and naval leadership, is underway at the U.S. Naval Academy, Annapolis, Maryland. In cooperation with the U.S. Office of Education, the Naval Academy is directing the experimental program with a view to evaluating the efficiency of various methods of teaching in the three designated subject areas and is preparing multi-media models for use by their own and other educational institutions. Like the models under development in the ES '70 district schools, the results of the Naval Academy project will be available to secondary schools.

In a recent communication to Harold Howe II, U.S. Commissioner of Education, Rear Admiral James Calvert, Superintendent, United States Naval Academy wrote, "We are proud to be part of the 'Education System of the Seventies' and consider the project as a vital part of our overall educational technology program."

The three courses represent a cross-section of a college curriculum in science ranging from 'hard' to 'soft' science. The Academy expects that an analysis of approaches to the design of these three courses will permit identification of factors which are critical to generalization of the multi-media course development model.

The underlying theme of the project is individualization.

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DR. RASMUSSEN HEADS AEROSPACE GROUP; TWO ES '70 SCHOOLS SELECTED FOR AWARDS

Dr. L. V. Rasmussen

More than two thousand participants launched the first National Laboratory for the Advancement of Education sponsored by the Aerospace Education Foundation and the U.S. Office of Education on November 18-20 in Washington, D. C.

Two ES '70 local school districts – Duluth, Minnesota and San Mateo Union High School District, California – were among those receiving awards of distinction for their outstanding innovative projects. Bronze plaques were awarded to them for "Demonstrating Significant Changes in Teaching Which Measureably Improve the Learning Process." Ten institutions and districts in all were commended for their contributions to more effective education, including the New York Institute of Technology, Westbury, New York, whose research efforts on individualizing education through the use of technology have been closely related to the ES '70 program.

Each of the award-winning schools presented classroom demonstrations using youngsters from the Washington, D. C. public schools. Participants also were engaged in seminars and "talk-back" sessions at which they could question, analyze

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NETWORK MEETS IN WASHINGTON *Continued*

efforts to advance ES '70 liaison with industry, announced that the National Association of Manufacturers will assist school systems if they desire to expand their industry contacts.

Dr. Duane Nielsen, Chief of the Branch for Organization and Administrative Studies of the DCVER, discussed projects relating to teacher training and school management.

Partnership for Learning, a filmstrip-tape presentation on ES '70 for use in community and schools, has been produced by E. F. Shelley and Company and was presented to the Governing Board. Copies are available for distribution after January 1. Each ES '70 school district will have one. Information regarding the availability of the presentation may be secured from E. F. Shelley and Company in New York.

The script of *Partnership for Learning* stresses that:

- An effective educational system must be a product of society's goals, needs, and resources. The numbers of students and the increasing complexity of subject matter have led to a rigid school structure which makes effective individualized education difficult.
- A major problem facing educators today is that of making the school environment more responsive to the individual student's needs. There is a lack of effective management techniques, resources for staff training, and provision for development of materials for individualized instruction.
- ES '70 is a partnership, a local-state-federal partnership, the unifying idea of which is a concern for structuring an educational environment which will be responsive to the student's individual needs and which will fully utilize available community resources in achieving such an environment.

The publication of the new booklet entitled *An Educational System for the Seventies* was announced. This describes the background of the ES '70 program, its rationale and objectives. It describes the four major program areas currently being developed and how the network is organized.

The organization of the ES '70 Information System was reported to the network members. This system, an integral part of the ES '70 program design, is being developed and implemented by E. F. Shelley and Company, Inc., in line with the overall objective of working on the improved secondary school curriculum effort in a systematic and logical order. The system is designed to keep track of the current status of all ES '70 core and related projects, and to provide for the exchange of information vital to the program.

Eliot Spack, ES '70 Coordinators' Chairman reported to the Governing Board on the Bloomfield Hills, Michigan Workshop in October.

The next meeting of the Governing Board will take place March 5-7, 1969, San Antonio, Texas.

HAROLD HOWE II JOINS FORD FOUNDATION

Harold Howe II, United States Commissioner of Education, has resigned to join the Ford Foundation as a program advisor in education effective January 1, 1969. Initially Mr. Howe will make a survey of the Foundation's educational programs in India. The Foundation is assisting the long range development of selected Indian universities and is also providing consultants and specialists on educational reorganization at various levels, particularly as it relates to India's development needs.

COORDINATORS ELECT TWO

Elected to the Steering Committee for ES '70 Coordinators at a Coordinators meeting held in Washington, November 21, 1968, were George H. Love of Philadelphia and Kenneth T. Smith of Broward County Schools (Nova), Florida. Charles Mink, San Mateo Union High School District, California, previously designated to this Committee continues to serve with Eliot Spack, ES '70 Coordinator from Mineola, New York, who is Chairman of the group.

It was announced that information concerning opportunities for Coordinators to spend extended time in internship at the U.S. Office of Education can be secured from Robert E. Pruitt or Dr. Sidney High at the Division of Comprehensive Vocational and Education Research, Bureau of Research, U.S. Office of Education.

AT THE NETWORK MEETING

(Left to Right)
Louis Hausman, USOE
Robert E. Pruitt, USOE
David S. Bushnell, USOE
Eliot G. Spack, Mineola

Gabriel H. Reuben
Willingboro, New Jersey

Father Thaddeus O'Brien, Asst. Superintendent of Schools for the Archdiocese of Chicago and Lawrence Brennan, ES '70 Coordinator

Dr. Ben Wallace,
ES '70 Chairman (Seated)
Eliot G. Spack
Chairman, ES '70 Coordinators

Dr. Duane Nielsen
U.S. Office of Education

AEROSPACE MEETINGS

David Bushnell, Robert Morgan, George Probst

Barry Williams — Washington, D. C.
using Duluth, Minnesota materials

Panel Discussion

LOOKING IN ON A "SELF-PACED" CLASSROOM

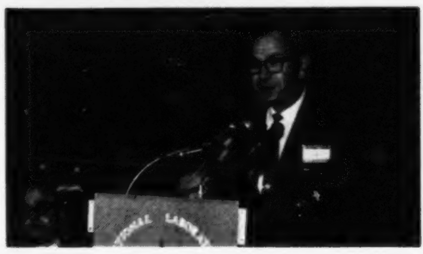
Of special interest to teachers interested in self-pacing programs was the demonstration from Duluth which involved 30 fifth-grade children from Adams Elementary School in Washington, D. C. One observer reported: "Three teachers put at the children's disposal the fruits of their five years of experimentation in individualized instruction. Actually, the same three teachers handle three times as many children in Duluth. The Washington, D. C. children had had no previous experience with a learner-centered curriculum, or with the array of learning materials placed at their disposal.

"The speed and delight with which the youngsters adapted to this new situation amazed both the teachers and the spectators. Small groups of children moved about freely from the file where their learning contracts were stored to whatever resource materials were appropriate. A few working together, selected a 16mm film. They quickly learned to thread the film on the projector so that they could view it. They listened to the audio with headsets. Others read, took tests or wrote assignments at the tables placed about the room while another small group sat on the floor with a teacher to discuss something they had written, a film they had seen, or a record they had heard.

"One teacher circulated constantly among the children who were working alone to make sure that they had the materials which they needed. Although there was a constant flow of movement about the classroom, and a constant hum of voices, there was an atmosphere of absorption in the task at hand which spoke of order, spontaneity and joy in the act of learning."

Mrs. Ruth Crassweller
President, Board of Education
Duluth, Minnesota
accepting award from Dr. Walter Hesse

Albert V. Mayrhofer
San Mateo, California
Accepting award from Dr. Walter Hesse



Dr. Leon M. Lessinger
Associate Commissioner
U.S. Office of Education

ES '70 EXECUTIVE COMMITTEE MEETS IN CHICAGO; CONCERNED WITH TEACHER TRAINING

Matters of teacher training and teacher training materials were brought before the Executive Committee for ES '70 at its meeting in Chicago on December 20, reports Chairman Ben Wallace. In this connection, there was discussion of the need to train trainers of teachers in the writing of performance objectives and in the adaptation of curriculum to these objectives. David Bushnell, representing the Office of Education, reported that a project has been funded to establish the ground rules for writing performance objectives.

Committee members discussed the possibilities of funding a special project to train at least one staff member from each of the 18 local districts in writing performance objectives so that he in turn can train local staffs, and of establishing a special training program during the summer of 1969 for this purpose.

Eliot Spack, Coordinators' Chairman, will shortly canvass the districts for the purpose of securing an inventory of materials presently in use as in-service teacher training materials so that this information can be made available to the network.

Mr. Bushnell reported to the Executive Committee that the University of Oregon is currently making an inventory and evaluation of special materials relating to the education of the disadvantaged. The results of this study will be circulated to the network.

The materials submitted on Student Personnel Data Items at the network meeting in November were further discussed at the Executive Committee meeting. The materials will be coordinated with the Evaluation proposals presently under consideration by the Office of Education.

The Executive Committee will meet on January 31, in New Orleans, Louisiana.

AEROSPACE COMMENDS ES '70 SCHOOLS *Continued*

and "even dream a little." Duluth's demonstration was on "Individualizing in Elementary School;" that from San Mateo was on "LSD: The Trip Back Home." The New York Institute of Technology demonstrated its "Computer Managed Instruction."

Dr. L. V. Rasmussen, Superintendent of Schools, Duluth, Minnesota and a member of the ES '70 Executive Committee, was elected President of the Aerospace Education Foundation to succeed Dr. Leon M. Lessinger, who is now Associate Commissioner, U.S. Office of Education.

A number of persons who have been closely related to the development of the ES '70 program were featured panelists and speakers at the conference: David S. Bushnell, Director, DCVER, USOE; Dr. Ben Wallace, Chairman of the ES '70 Executive Committee; Dr. Robert Mager, Research Director of the Aerospace Education Foundation; Dr. Thorwald Esbensen, Florida State University, who has recently published a paper on self-pacing in Duluth; Dr. Joseph Lipson, Nova University, Florida; and Dr. Robert M. Morgan, Director of Educational Research and Technology, Florida State University.

The second National Laboratory is scheduled to take place in January, 1970.

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NEWS FROM THE NETWORK

BLOOMFIELD HILLS, MICHIGAN:

The initial phase of the Bloomfield Hills research project entitled "A Study to Design, Develop, Implement, Evaluate and Revise Specific Measurable Performance Objectives to Serve as a Model to Individualize Instruction for Secondary Schools" was completed in October of 1968. The project is now entering its "continuation" phase. According to reports from Dr. Marjory E. Jacobson, Coordinator of Federal Programs in Bloomfield Hills and Robert E. Boston, ES '70 Coordinator:

"The objective to establish in all courses at the secondary level a curriculum model of behavioral objectives has been completed with only a few course objectives which have not been constructed.

"The first phase of the program has been critiqued by consultants with specialties in subject matter disciplines, general secondary education, and the instructional material fields. This evaluation project will be augmented in testing the behavioral objectives during the continuation phase.

"To make this study meaningful at the state level, consultants for the State Department have not only served as consultants during the summer, but have visited the Bloomfield Hills Project Schools prior to the time of this research evaluation. They have exhibited a great deal of interest and enthusiasm in our program.

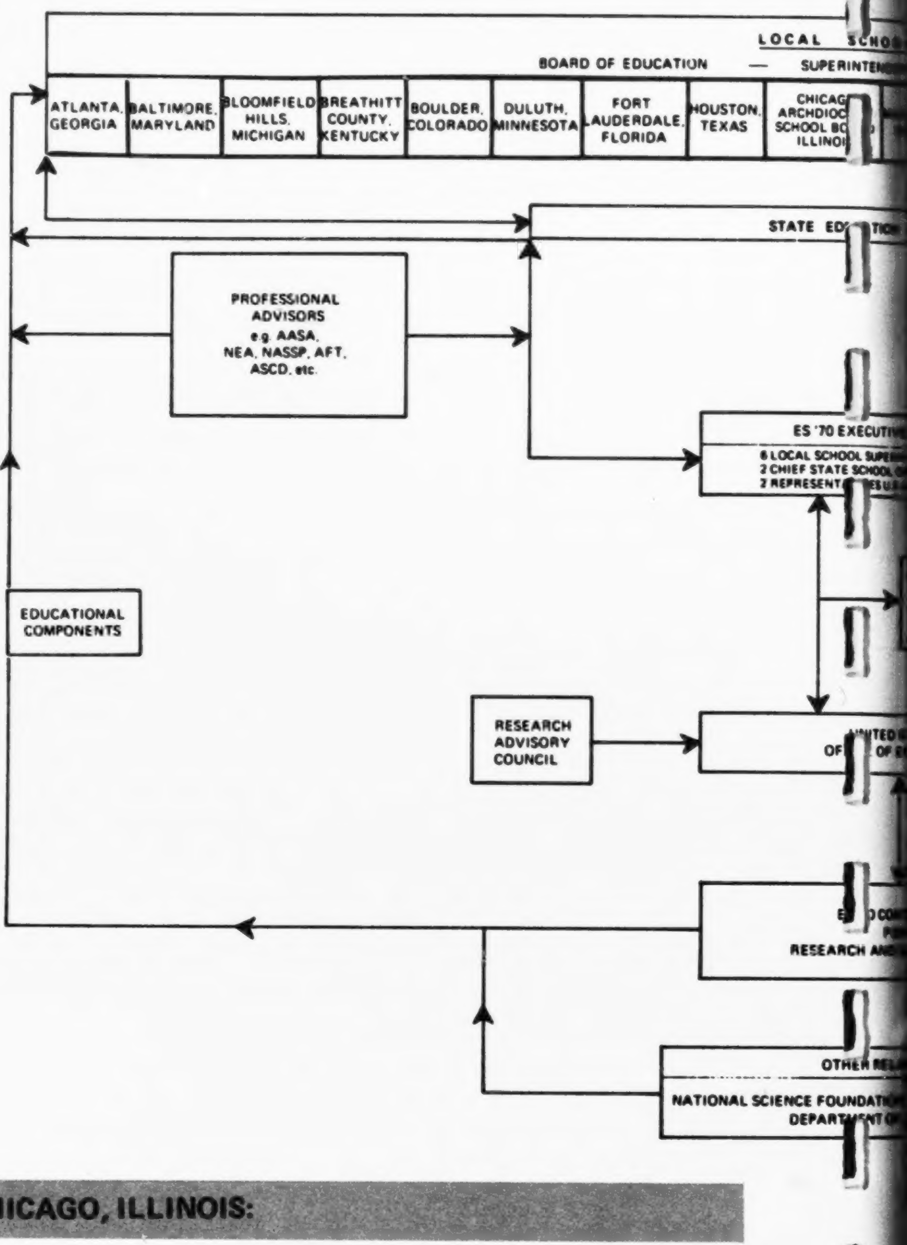
"To bring to the local community the total curriculum design as it is reflected in individual programs and as the behavioral objectives have been assessed and revised, parent and teacher organization involvement, teacher-parent conferences and orientation meetings are examples of opportunities for large and small group interaction between the Bloomfield Hills Schools and the total community. To assess the design of the behavioral objectives in all courses at the secondary level, data is available from the workshop last summer to contribute toward this evaluation. Criteria have been constructed for the evaluation of this design. They will serve as a basis for analyzing and testing the compilation of the research data.

"The behavioral objectives for all disciplines have been cross-indexed horizontally to common skill levels and referenced vertically to the cognitive processes of learning. Sequenced course objectives have, by and large, been constructed to supply the interim steps leading to the fulfillment of each objective. In order to inventory published resource materials, many off-the-shelf materials — written, audio, and visual — have been coded into the learning sequence as a part of the evaluation of the adequacy of the objectives.

"The three project schools — Way Elementary, East Hills Junior High, and Lahser Senior High School — were opened this Fall with all the classrooms following the design patterns of the continuous progress curriculum. It was encouraging to note that administrators, teachers, and other staff members in their first responses to instruction this fall have been very optimistic with regard to the success of the new curriculum for the 1968-1969 school year.

"The opportunity during the summer months to revise objectives, code off-the-shelf materials, develop curriculum, and write student and teacher instructional materials, has stimulated the administrators and teachers to even greater efforts in the discharge of their duties this fall."

ES '70 ORGANIZ



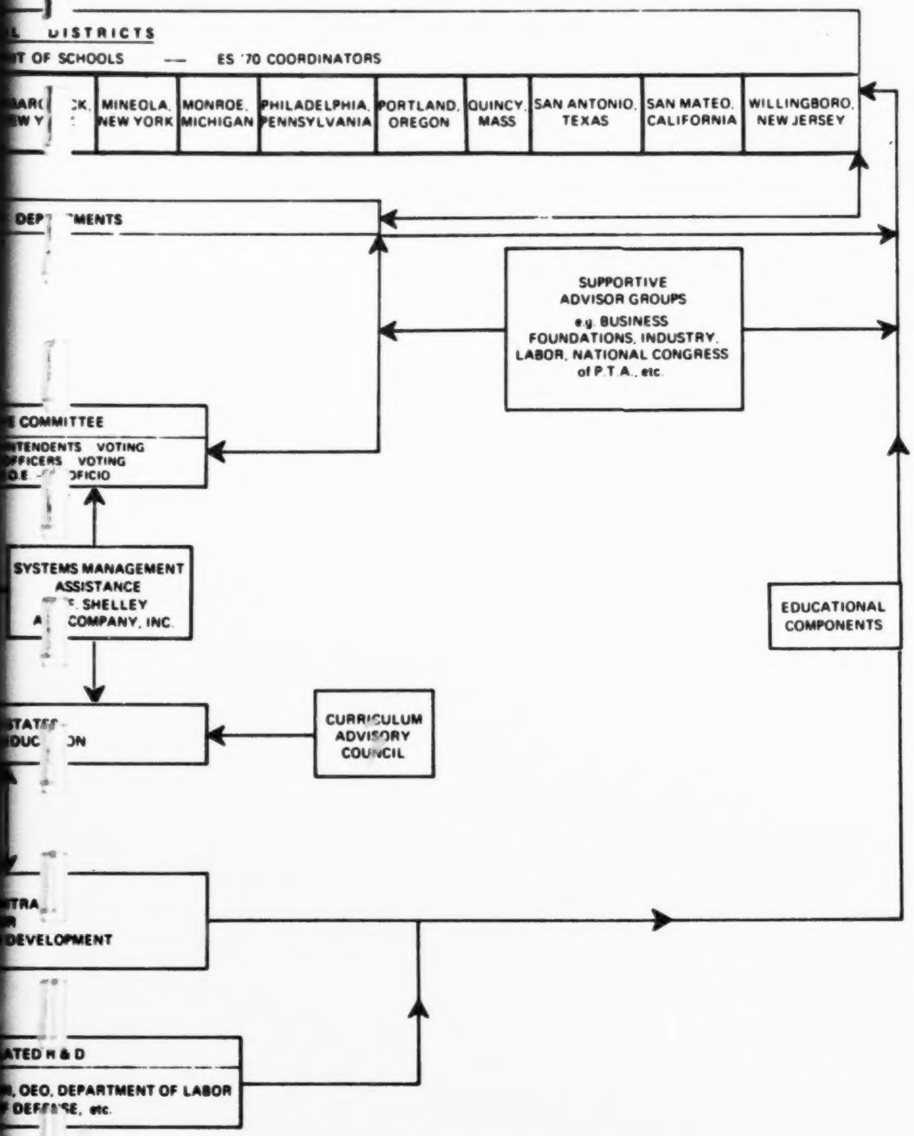
CHICAGO, ILLINOIS:

The eighteenth member of the ES '70 primary network, the Chicago, Illinois Archdiocese School Board, has two schools designated for the research and demonstration program. The two schools are Mount Carmel High School (for boys) and the Loretto Academy (for girls). Mount Carmel has an enrollment of 950 in grades 9-12, with a school population of 705 white and the remaining 30% representing various minority groups. It has a college preparatory curriculum. The girls' Academy has an enrollment of 400 in grades 9-12, but its school population is 99% minority groups and 1% white. It has a vocational curriculum, and is widely known for its adult education program.

The schools are one block apart in the heart of the Woodlawn area of Chicago and are the only integrated schools in the district. They form part of the Woodlawn Experimental School District and are represented on the community school board. There is close collaboration between the area schools and the University of Chicago as they strive to solve the educational problems of the ghetto.

Representing the two schools in the ES '70 network are Father Thaddeus O'Brien, Assistant Superintendent of Schools in the Archdiocese, and Dr. Lawrence Brennan, ES '70 Coordinator.

ION STRUCTURE



MAMARONECK, NEW YORK:

Frank Cassetta, ES '70 Coordinator in Mamaroneck, reports that during the summer (Ernest Knoblock was Coordinator at the time), five teachers worked on the proposed MENTA program (Mamaroneck English Ten Approach).

"In the course of the program, three course objectives were crystallized. The tenth grade English student should be able to:

(1) identify his environment (This includes detailed identification of place, time, things and people in the determination of specific environmental characteristics)

(2) envision the alternatives available within his environment (Enumerate and choose alternatives of response to environmental stimuli broadening thereby the scope and variety of his experiences)

(3) exercise control over his environment by actualizing these possibilities (This is designed as the most important objective of MENTA. It has broad implications yet it contains the potential for the specific exercise of student behavior, namely decision-making)

The MENTA staff is currently working on a task planning chart which will be designed to set up task analysis and determine target dates for task completion. An art media specialist, with experience in film production techniques, has been engaged full time to work on the project."

TITLE III GRANTS

Six ES '70 school districts are engaged, under Title III grants, in developing new learner-centered curriculum models in specified subject areas. In accordance with one of the overall objectives of ES '70, the major focus of their effort will center on instructional programs on the secondary level.

These districts and their project designations are: Atlanta – Technical Science; Baltimore – Selected Areas of Vocational Education; Breathitt County – Science; Broward County (Nova) – Mathematics, Science; Mamaroneck – English; Mineola – Mathematics for Vocational Education.

The participating schools in the ES '70 program have committed themselves to systematically building a new curriculum, which will translate broad educational goals into discrete yet related learning packages. It is expected that this new curriculum will describe with precision what each high school graduate should be able to do as a result of his school experience.

Accordingly, the network schools have defined the rationale for developing a curriculum based on performance objectives. They are conferring on and refining their definitions of performance objectives after examining the differences involved in specifying objectives in each of the three domains which have been classified by education theorists such as Bloom and Krathwohl as cognitive, affective and psychomotor.

Briefly, the rationale for a behaviorally-oriented curriculum is:

1. To provide a sound basis for determining which learning interventions or teaching strategies are most effective.

2. To determine the extent to which the school program prepares young people to cope with the social and economic environment when they leave school.

3. To analyze cost-effectiveness of educational programs.

4. To effect a learner-centered individualized instructional program where the learner's progress can be precisely measured and each successive learning experience tailored to his individual needs.

The basic development of specific performance objectives follows the guidelines outlined by Robert Mager in his book *Preparing Instructional Objectives.* Accordingly, each performance objective should show consideration of:

1. *WHO* is to perform the desired behavior;
2. *WHAT* behavior is to be performed;
3. The *CONDITIONS* under which the behavior is to occur;
4. The *MINIMUM PERFORMANCE STANDARDS* the learner must attain to successfully fulfill the objective.

At the time of the inception of the ES '70 program, most efforts in classifying educational objectives had been centered around the cognitive areas, that is the development of specific knowledge and/or knowledge related skills.

Among the more difficult challenges to be considered is the development of objectives in the affective domain, which involves more nebulous or intangible factors such as attitudes and interests. Challenging to educators also is the psychomotor domain where performance is evidenced by demonstrations or constructions and where evaluation is influenced by the subjective responses of the observer.

Following the initial work of analysis, identifying objectives, and researching materials in all available modern media, efforts will be made to match these objectives and resources with the learning patterns of individual students.

Development of suitable assessment instruments will accompany the design efforts. On-going revision and improvement of the instructional modules will be based on systematic reports of the operational experience in the network schools. The program results will be made available to all schools.

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A DEFINITION OF COMPREHENSIVE EDUCATION

Marvin J. Feldman, Program Officer, The Ford Foundation

(Excerpts from a speech delivered September 10, 1968)

What I am asking for is a redefinition of the basic aims of education. I won't attempt a full analysis of what these aims should be, but we surely can identify four related but distinct purposes which we might agree to be the definition of "comprehensive education." The first is to identify the talent and learning style of the individual.

The second purpose would give him knowledge of the world in which he lives in both physical and social terms. A third purpose is to develop the skills needed to sustain and advance his life so that he may be a productive and creative individual in society.

Connected with these three purposes but still distinct from them is the fourth purpose, which is to satisfy the individual's search for life values.

Each of these four aims has been detailed and formulated in other educational literature. I mention them again, because on its surface it appears that the first aim – to identify talent – leads to a theory of General Education, while the third – skill development – suggests training of specific aptitudes. The second aim includes both general knowledge of the world and special knowledge suited to particular vocations. The fourth – a search for life values – does not fit into either category and stands by itself.

Analysis will, however, show that such clear-cut distinctions do not stand. Each aim merges, supports, and is supported by the others.

It is obvious that the development of the personality of the individual, the identification of talent, and the acquisition of general knowledge of the world must begin in early childhood, i.e., at the elementary level, and continue up to and a little beyond adolescence. There can be no question of developing specific occupational skills at this stage of education. The only aim of education at this level is to give the child that fundamental knowledge which he will share with all members of society and develop in him the intellectual and social habits necessary for his survival.

Nevertheless, having said this, while elementary education is the most general in purpose, it is at the same time very concrete. Children, from the cradle, learn by experience – the specific, concrete experience of events, successes, accomplishments, failures, tasks, joys. Since such experience is specific in nature, elementary education, in spite of the generality of its purpose, is more specific in content than education at any other stage; and we need only recall our own elementary education to remember Jane and good dog Spot. No generalities there.

The recent examination of the basic elementary education in our nation's inner city ghettos has reinforced this truth. Ghetto children, we now know, lack the experiential base our traditional, rural, suburban, and white-oriented elementary curricula takes for granted. Inner city children are not verbally oriented for such curricula. We cannot develop the ghetto child's potential or identify his talents without creating for him new experiences. These experiences for these children can be provided within the school by introducing carefully selected workworld arts and crafts and other manipulative and experiential opportunities into elementary education. By insisting on carefully designed craft and science experiences, elementary education recognizes that for a poor child abstract teaching is not merely a strain but remains unreal. By introducing various technological experiences early, the element of activity is immediately brought into the pattern of education. Some common experiences for the poor child recognize the educational principle that learning must proceed from the familiar to the unfamiliar.

LOCALITIES DIFFER

These ghetto programs suggest that the content of elementary education, while arriving at similar goals, must differ from locality to locality. The child on the farm may bring to the elementary classroom a much different set of specific experiences than his cousin in the inner city. The purposes of education are common to both, but the way in which such purposes can be fulfilled depends at this stage on making education as concrete and specific and as relevant as possible.

As we proceed from elementary to secondary education, a new principle comes into operation. Secondary education may be broadly equated with the period of adolescence. Adolescents are passing through physical and psychological changes of profound significance to the individual. Besides, if the talents and the learning style of the pupil have been identified in elementary education, differences in aptitudes demand a larger field of choice. The uniform pattern of elementary education has to be replaced by a variety of courses to cater to differences in taste and learning style.

Underlying the programs I am describing is the concept that intelligence is not fixed, as was once supposed, and that, furthermore, it can be developed by providing the child with enough interaction with his environment, interaction that is relevant to the role of early experience and psychological development.

LEARNING STYLES DIFFER

Some children are graphic learners. Others learn best through manipulation. Still others are affective and extremely sensitive in human interaction. There are other styles as well and underlying all of them are still other aspects of how children differ in the way they process and retrieve information – as whether they are global or analytical in their learning habits, for example. In any event, most children, especially ghetto youngsters, could be engaged in good general education programs if we borrowed the vocational processes themselves in which to engage them. All of these youngsters bear out what researchers have been saying for years – that youngsters do have different styles of learning and that everything possible must be provided to allow the learner to interact with his environment. Vocational education, techniques and devices, conceived of as a tool for comprehensive education, rather than as an end in themselves, lend themselves readily to the purpose of matching learning styles.

In recent years much has been written on the several dimensions of individual differences in the performance of learning tasks. These differences have been conceptualized as cognitive styles which represent a person's typical way of perceiving, remembering, thinking, and problem solving. A good deal of perceptual ability is based on concrete experiential activity which the learner is able to recall in order to accept a new learning stimulus.

Much learning is based on experience. We must, therefore, create the experience upon which to build the learning.

Often in serving children whose styles are not verbal, we lose sight of the fact that doing is only the beginning. Thinking follows. Feeling follows. Doing is the specific from which later generalizations will follow, and vocational education can contain a high proportion of doing if used properly for comprehensive educational purposes.

VOCATIONAL EDUCATION NOT SEPARATE

Comprehensive education, then, is an educational program which does not consider vocational education as a separate discipline. It takes the view that vocational education involves processes that could be applied to many disciplines and that vocational education should be viewed as a system that provides alternative processes based on learning styles of people. If that point of view were taken, vocational education would not be put into the education spectrum at a particular time and place. Rather, it would be viewed as something which involves a method of teaching and which could be offered to the individual at various stages of development. This notion in the use of vocational education as a pedagogical vehicle would stimulate the child to learn because he is interested in the end result and welcomes the process by which the end result is achieved.

It is impossible to study vocational education without realizing that in fact there is no system of vocational education. There are schools of all kinds at all educational levels, but there is no system with a logical progression from school to school and from level to level. For 60 years vocational education has been confused with practical training required for a job and has been regarded as separate and distinct from "education" as such. It is offered at the end of a process of compulsory general education and is concerned with only a fraction of the labor force. It is associated with manual occupations and is thought of as inherently inconsistent with the ideal prospect of higher education for all its pupils.

Because we have just begun to learn more about learning styles, we have not recognized the good number of important vocational education processes that are now being misused.

WASTEFUL PRACTICES

Instead of creating comprehensive programs that give youth and adults a rational opportunity to apply their skills, most countries, including the United States, indulge in wasteful practices that neither meet the needs of the economy nor of the people. In times of crises, when the accumulated effects of neglect cannot be ignored, expensive crash programs are mounted or onetime training schemes are set up for the unemployed who are jobless because they have no skills and for youths who drift without purpose in a specialized labor market.

We need more comprehensive education and we need better comprehensive education.

What we must stand for in public education are programs that tend to opt for an earlier introduction into what used to be considered occupational concepts but to delay provisions for specific occupational skills, a blending of basic general and vocational education flexibly shaped to individual interest and needs.

ES '70 ROSTER, JANUARY, 1969

School District, Superintendent	ES '70 Coordinator
Atlanta, Georgia *Dr. John W. Letson	Dr. James O. Knuckles
Baltimore, Maryland Dr. Thomas D. Sheldon	Martin H. Raila
Bloomfield Hills, Michigan * Dr. Eugene L. Johnson	Robert E. Boston
Boulder, Colorado Dr. Paul E. Smith	William H. Reed
Breathitt County, Kentucky Mrs. Marie R. Turner	William N. Ryan
Broward County (Nova), Florida Warren G. Smith (Coordinator of Nova Schools)	+Kenneth T. Smith
Chicago (Archdiocese School Board), Illinois Father Thaddeus O'Brien (Asst. Superintendent)	Dr. Lawrence Brennan
Duluth, Minnesota *Dr. L. V. Rasmussen	John O. Muldoon
Houston, Texas Dr. Glenn Fletcher	Dr. Frank B. Wesley
Mamaroneck, New York Dr. Otty R. Norwood	Frank Cassetta
Mineola, New York **Dr. Ben Wallace	++Eliot G. Spack
Monroe, Michigan Dr. Harold C. Rapson	William M. Hetrick
Philadelphia, Pennsylvania Dr. Mark R. Shedd	+George H. Love
Portland, Oregon Dr. Melvin W. Barnes	Glenn E. Hill
Quincy, Massachusetts Dr. Lawrence P. Creedon (Acting Superintendent)	(Not designated at this time)
San Antonio, Texas Joseph P. Leyva	Mrs. Lucille L. Santos
San Mateo, California *Dr. A. Hugh Livingston	+Charles W. Mink
Willingboro, New Jersey *Dr. Gabriel H. Reuben	(Not designated at this time)

** Chairman of ES '70 Executive Committee
* Member of Executive Committee
++ Chairman of Coordinators' Steering Committee
+ Member of Steering Committee

ES '70 NEWS

ES '70 NEWS is published at regular intervals during the school year to keep readers up to date on current ES '70 activities and progress. Examples of representative activities are reported in each issue.

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ANNAPOLIS TO PROVIDE ES '70 MODELS *Continued*

The courses will be structured so that each segment will be presented by those strategies and in those media which will most effectively meet the students' individual learning requirements.

According to Rear Admiral Calvert, the physics course being developed by the New York Institute of Technology, is currently in operation. The economics course being prepared by the Educational Technology Center of Sterling Institute will be in operation shortly. Westinghouse Learning Corporation is developing the naval leadership course which is expected to be in operation in approximately one year.

DISTRICT APPOINTMENTS

Joseph P. Leyva *has been named Superintendent of Schools in San Antonio, Texas to replace Bennie F. Steinhauser who has resigned.*

* * *

John Rosser, *former ES '70 Coordinator for Willingboro, New Jersey, has been appointed Executive Director for New Jersey Regional Educational Improvement Center in Glassboro.*

Mr. Rosser will assist the eight County Superintendents of South Jersey in the development of new programs such as ES '70 and others.

FOR YOUR FILES

ES '70 DOCUMENTS, FILM:

[*PARTNERSHIP FOR LEARNING,* a new filmstrip-tape presentation of ES '70, is now available on request.]

Information on availability of reports, films, booklets may be obtained from: E. F. Shelley and Company, Inc., 866 United Nations Plaza, New York City, 10017.

ES '70 CALENDAR – 1969

March 5-7 – ES '70 Network Meeting, San Antonio, Texas
June 26-27 – ES '70 Network Meeting, Quincy, Massachusetts

Executive Committee meets monthly.

CHIEF STATE SCHOOL OFFICERS LAUD VOCATIONAL EDUCATION ACT

Among the resolutions passed by the Council of Chief State School Officers at their November meeting in Utah was one of particular interest to the ES '70 network on the Vocational Education Act of 1968:

> "We commend the Congress for its bipartisan statesmanship in enacting the Vocational Education Act of 1968, and recommend full funding as soon as possible. This legislation can become an important factor in the improvement of education and equalization of opportunity for all.
>
> "We call upon state governors and legislatures promptly to meet the full matching requirements of the Act when these have been determined, and to assist in the unification of all education that concerns the world of work. We also call upon the U.S. Office of Education to interpret this legislation as broadly as possible in regulations and in federal administration of the law to promote such unity. We urge the federal officials to minimize any incentives in the law and any practices in its administration that may tend to separate the basic education and the special training that are equally important in the modern world of work."

The federal government increased its commitment to vocational education by passage of the Vocational Education Amendments in action taken by the 90th Congress shortly before its October adjournment. Its provisions, seen as a "whole new act" by the U.S. Office of Education, authorizes $3.18 billion for the next four years and continues the program beyond that on a permanent basis.

MAMARONECK GRANTED FILM AWARD. The American Film Institute has given financial assistance to 13 film programs in the United States that are using film in the areas of humanities, community involvement and teacher training at all school levels from kindergarten through adult education. The Mamaroneck, New York school district has received one of these grants to use film as the "new literature" to be included in the design of a new English curriculum being developed in that district.

ES
'70

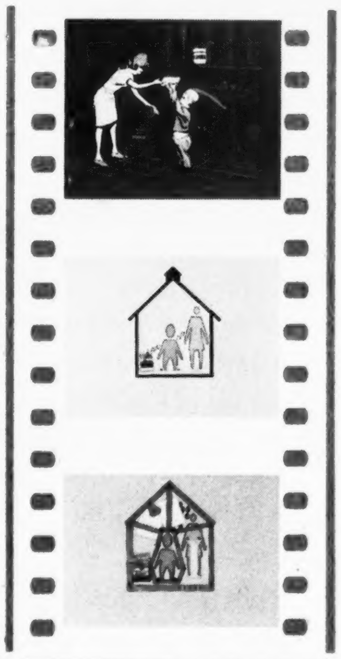
EDUCATIONAL SYSTEM FOR THE SEVENTIES
ES '70
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

NEWS

VOLUME 1 – NO. 7
FEBRUARY, 1969

- PARTNERSHIP FOR LEARNING -

(A twelve minute filmstrip-tape presentation on ES '70 has been prepared for use in community and school. Following are excerpts from the audio-visual presentation.)



...learning to this child is a continuous interaction, or exchange, with the people and the things in his surroundings.

In providing the school, society supplies the space and time, the materials and personnel, to foster these interactions. – At one time it was possible for this child to go to school and to enter an environment responsive to his needs to relate, to discover and to understand himself. This unfortunately is no longer true in many schools!

* * * *

...the school environment took on the appearance of a rigid structure-within which the student had to fit. And it has been this problem that has caused American education, within recent years, to devote much of its research and development effort to a search for ways to make the school setting more meaningful and more responsive to the individual student.

* * * *

In effect, a decade and a half of innovative efforts have produced meaningful results in separate controlled experiments – but most often the techniques developed could not be implemented in the operational situations of the schools.

* * * *

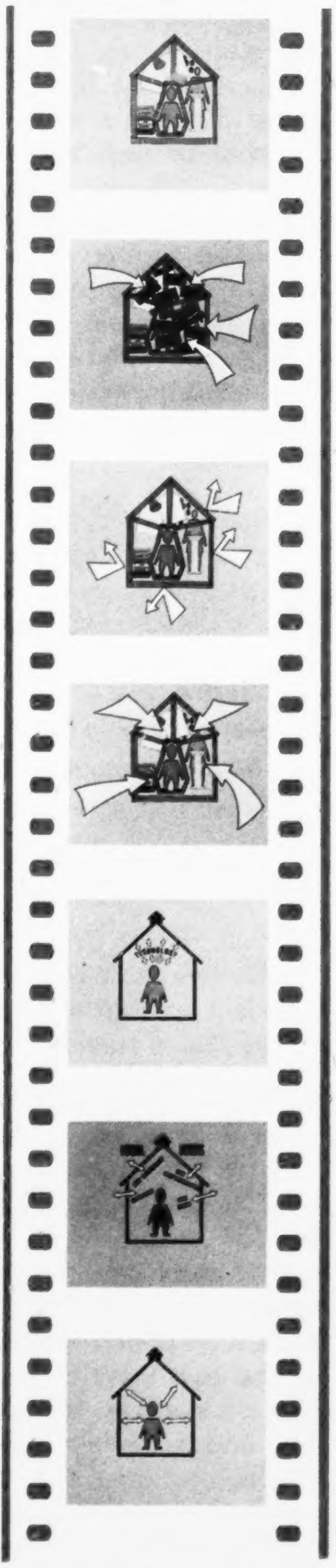
As J.S. Mill once said, "Against a great problem small efforts do not produce small results, they produce no results at all," And therefore,....

...how to deal with changes in the educational environment on a broader basis...has become one of the major concerns of American education today...how to anticipate the staff training and the school management implications...how to assure that technology does more than merely automate a non-responsive environment?

How to make it possible for a local community to take the product of a coordinated, large-scale research effort and weld it into a workable system that reflects local relevance and builds upon full community participation? And underlying it all...

...how to assure that the results of massive efforts and expenditures to improve education really will contribute to better individual learning and satisfaction for the pupil.

In an attempt to respond to these concerns and thereby demonstrate that comprehensive changes, designed to facilitate learning, are possible, . . .



Continued page 3

EXPANDING INTEREST IN ES '70 PROGRAM AND MATERIALS REPORTED BY DR. WALLACE

"Interest in the idea of ES '70 and hope for change in the nation's schools are expanding," says Dr. Ben Wallace, Chairman of the ES '70 Governing Board, in a midwinter report. "We have had an increasingly heavy number of requests for our printed materials, for our film and now for our filmstrip tape presentation on ES '70 from schools, universities and communities throughout the nation and even from Canada. ES '70 NEWS, which reports the activities of the network, is being widely used in the participating districts as a means of familiarizing staff members as well as citizens with the aims and objectives of our effort to improve the secondary school curriculum."

Dr. Wallace stated that teachers, once exposed to the rationale for and techniques of writing new curriculum in terms of performance objectives, have been enthusiastic about participating in the research and demonstration program. They have been volunteering for in-service training programs in larger numbers than many of the districts had anticipated. They are reporting new student excitement about learning wherever they have begun to put their new techniques to work.

Continued page 4

"I consider education a federal concern, a state responsibility, a local function" – Richard M. Nixon

THE COMPREHENSIVE HIGH SCHOOL

(Excerpts from an address by David S. Bushnell, Director, Division of Comprehensive and Vocational Education Research, USOE, to Aerospace Education Foundation, November, 1968, Washington, D. C. .)

. . . We need only to compare our system of education in this nation with those of most other countries to highlight both our strengths and weaknesses. In terms of equality of access to education and in terms of social and economic mobility, our schools offer an important and meaningful experience for those who have learned to adapt to their requirements. We enjoy in this country a uniquely high level of public school enrollment through the 12th grade. Only Japan and England come close to graduating the number of students that we do. Nevertheless, it would be misleading not to observe that we still experience a 30 percent dropout rate before graduation from high school, and for many of those who do manage to hang on through the 12th grade, it has been, at best, a passively-tolerated experience. What our schools actually offer is an educational experience oriented to those who are capable of conforming to the demands of the dominant white, middle-class culture.

A second characteristic of our high schools as compared with other nations is our emphasis on rewarding students for achievement as against punishing them for failure. No country openly advocates a policy of failure, though what they practice as education frequently adds up to the same thing. Most nations, for lack of economic resources, impose on their educational systems a sharply narrowing pyramid of enrollment as students move upward through the grades. There is almost exclusive emphasis upon preparation for higher academic attainment. We, on the other hand, have moved much closer to achieving universal education for all students, through the 12th grade. Our policies provide education offerings such that the high school graduate may go on to college or into a job. What we profess in our Cardinal Principles of Secondary Education is a commitment to both the college-bound and non-college-bound student alike.....

TODAY'S PROGRAMS FALL SHORT

Unfortunately, today's high school programs fall considerably short of this optimal goal. Primary attention has been lavished on the college-bound student. Vocational education, for a host of reasons – its costs, the attitude of most college trained teachers, and its often times narrow and specialized focus, has not fulfilled its promise at the high school level. Some form of occupational education in high school offers one of the best ways of making education relevant to a whole host of students. We profess to a dual system of education with bridges between, but in reality there are no bridges. And both groups suffer as a result.

A third aspect of our public education system in this country is the growing recognition of the need for experimentation and research. This aspect of education, however, cannot be discussed as we have discussed the previous two. No longer can we discuss education in terms of the untested concepts that provide for improvement in education. The future of education, . . . must be discussed in terms of a process of change as well as what changes should be brought about . Please note the subtle shift from talking about the past to talking about the present and future. Most commentary about the educational scene is derived from educational speculation and not from empirically derived recommendations. Dewey, Whitehead, Conant and a host of others have failed to achieve their eloquently stated objectives because of their failure to cope with the complexity of the change process. Thus if we too are not to fail we must not concentrate solely upon what education should be; we must also concentrate on how we get to where it should be. . .

THREE "HAPPENINGS"

. . . Let me summarize at least three major "happenings," which we could probably all agree, give promise of improving the quality of education available to our offspring. These three range from new curriculum efforts to changes in school organization and administration. . .

. . . The first happening is the great interest in individualized instruction designed to adapt to the ability levels and learning styles of students of varying backgrounds and aspirations. The basic underlying, empirically validated, premise supporting the IPI concept is the observation that man is not genetically limited in his capacity to learn. Achievement of this goal of optimal learning will require a raft of empirically validated new teaching materials and methods, school organizational patterns, as well as profound attitudinal changes on the part of teachers, and administrators.

A number of curriculum researchers, such as John Goodlad, see today's stress upon IPI as progress beyond the discipline centered reform movement started back in the early '50's. They are concerned with the total curriculum. Subject-by-subject curriculum reform must continue as an important enterprise, but there is a growing recognition that discreet and separate courses will not necessarily insure a balanced education, or, . . . a minimally adequate education. Horizontal, as well as vertical, integration of subject areas is needed.

ALTERNATIVE PATHWAYS

In Goodlad's words, "Curriculum planners need (a) more precise objectives, (b) criteria for all kinds of choices and decisions, and (c) operational models of what happens when differing data and differing sets of values are used in making these decisions." By linking the knowledge to be learned with the information processing habits of students (cognitive style), we can begin to offer alternative pathways for more students, not just the verbally gifted, to achieve at least the minimal level of performance required to function as an adult.

It is almost commonplace today to observe that learning readiness and academic achievement appear to be as much a function of teaching method as of subject matter – even two and three year olds are being taught to read. Schools are beginning to respond to these advances . . . There is a strong trend towards learner-centered as against teacher-centered teaching. Contract systems . . . are now making it possible to schedule each student on a one to two week modular basis, permitting schedules to be adapted to individual student requirements. Successful learning experiences, be they group or individual study, are helping to reinforce the desire to continue one's learning beyond the formal years. Success also helps to reinforce the sense of competence and control over one's own destiny which we know to be an essential ingredient in the adult personality.

A third trend, one which has been given great publicity here and elsewhere, in my opinion, is not yet quite off the launching pad . . . Nevertheless, leading educators and businessmen are counting heavily on the new instructional technology to produce major improvements in the effectiveness of the learning process, while at the same time helping to stretch the education dollar. . . . .

NEWS FROM THE NETWORK

HOUSTON INDEPENDENT SCHOOL DISTRICT, TEXAS

From Coordinator Franklin Wesley, comes word that a Central Cities program has been initiated in Houston for a neighborhood that enrolls 5,424 pupils in a cluster of four elementary schools and a junior-senior high school complex. In announcing the program in June, Superintendent Glenn Fletcher said, "What we are going to do in this program is essentially to expand the walls of these schools to the outer limits of the neighborhood. The school, home, playground and classroom will be drawn together in an educational atmosphere that will know no boundaries."

The ES '70 project school is expected to include a complete laboratory for teaching vocational clusters in electricity and electronics. Personnel and personnel services are expected to be made available for planning, directing, developing, implementing and validating a curriculum for these courses. There will be dial access equipment in the Learning Resource Center and Reading Laboratory for student retrieval of materials. Some of the learning materials and "softwear" for the program will be locally developed with assistance from the Central Cities program. Comprehensive guidance and vocational counselling is being offered to parents and children alike to advise them of their career potential and to actually assist them in finding work.

Says Mr. Fletcher, "Because of additional resources, vocational training will begin in the fifth grade and continue through the senior year of high school and beyond into the adult education program designed specifically for people in the neighborhood."

ES '70 NEWS

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Continued from page 1

...–local, state and national levels of education have joined together in a working partnership. This partnership, operating under the formal title of *Educational Systems for the Seventies,* or ES '70 . . .

* * * *

The ES '70 partnership is not a rigid, structured entity as much as it is a means to an end – a process of relating educational changes – a developmental method to assure that our human and financial investments in education produce the greatest benefit for each child in America. The unifying idea that ties the local, state and federal educators together in this process . . . .

. . . is their common concern for structuring the educational environment so that each individual may develop to the full measure of his potential;...and their common belief . . . .

...that the means to this end, if not already available, can be brought into being with a sufficient concentration and combination of society's resources, expertise, and understanding. The goal of the ES '70 effort is to develop an educational environment in which a community's resources can be most effectively and efficiently managed to provide each child with adequate and appropriate learning opportunities so that he may develop into a responsible, intelligent and fully participating citizen.

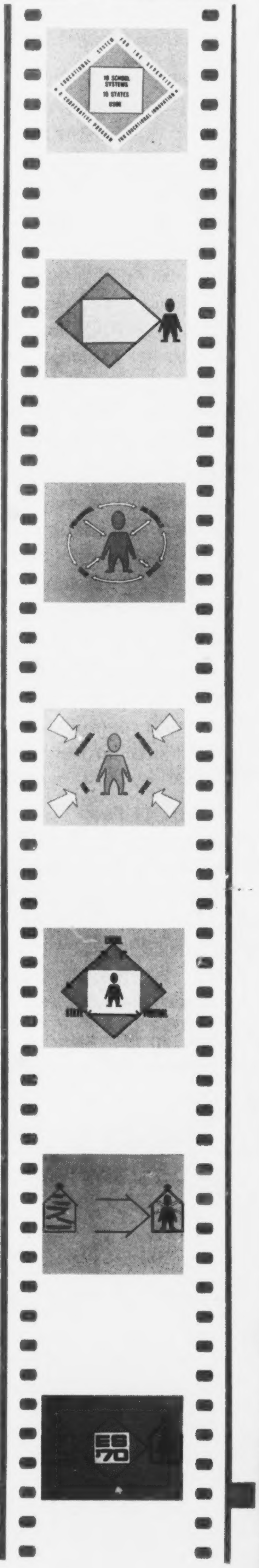
* * * *

...The implications of this demonstration go far beyond the 18 school systems which have volunteered to serve as evaluation and demonstration sites – for the instructional materials, the school management techniques and the staff training procedures, once proven effective and workable at these test schools, will be available to the rest of American education.

* * * *

...(task) is to develop the means to help us move from where we are to where we should be. – One such attempt to build a bridge to the future. . .

. . . is ES '70 !!


EDUCATIONAL SYSTEM FOR THE SEVENTIES
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION
18 SCHOOL SYSTEMS
16 STATES
USOE
ES '70

DR. WALLACE REPORTS ON ES '70 (Continued)

"Having established the complex organizational routines for ES '70, necessary to a working program, we are now filling in the 'flesh' of the project," continued Dr. Wallace.

"The central data information bank for ES '70 is now in operation. We are currently assembling an up-to-date record of innovative programs in each of our participating districts. The Student Personnel Data Items are being refined for use in the evaluation program for ES '70. Local school systems are reviewing their own data collection processes. Work is being done to make reporting compatible to permit effective interchange of pertinent information among the districts and to facilitate our development of new modes in instructional management and career guidance as well as in school management and administration.

"The universities and professional groups are cooperating with the districts in developing staff competence in writing new curriculum modules based on performance objectives. The advisory groups have been diligent in their reviews of the program. The state education departments are beginning to relate the ES '70 effort to statewide educational concerns and projects.

"We are reminded that our new President, Richard M. Nixon, in a pre-election statement on education took note of the particular contribution of each level of government in the educational process when he said: 'I consider education a federal concern, a state responsibility, a local function.' "

Said Dr. Wallace: "ES '70 encompasses this shared participation in educational progress. This program demonstrates the increased strength and effectiveness that can be drawn from cooperative and coordinated effort."

NEWS FROM THE NETWORK

PHILADELPHIA, PENNSYLVANIA

George H. Love, ES '70 Coordinator, in his year-end report described the major activities in involving the community in the ES '70 project. "Of particular interest are the eight subcommittees which were formed to consider proposed plans and to assist in the development of the new University City High School ES '70 school program. The overall planning committee consists of parents, teachers, University faculty members, school administrators and persons from business and industry. The eight subcommittees are:

1. Industrial-vocational Relations, which will contact industry to involve them with commitments to the school for apprenticeships or on-the-job-training.
2. University Relations, which will establish courses at the University level, obtain a list of professors to work with students, and assist in the planning of schedules.
3. Adult education, which will ascertain the needs of the adult community and plan school-related activities for adults in the evening and Saturday classes.
4. Curriculum Committee, which will assist in the development of the curriculum for the school.
5. The School-Community Committee, which will work with the social agencies in the community, such as social, welfare, police, etc., in order to promote better relations with families.
6. Business Committee, which will work towards obtaining positions for students and graduates in business offices and banks, etc., on a school-work basis. It will also obtain a list of business people to work with students in the school.
7. Faculty Recruitment and Development Committee. This committee will assist in the selection of staff for the school.
8. Feeder School Committee. This will make a study of the feeder schools and give suggestions for preparing students for admission to the high school. Each of the above subcommittees has a chairman and a recorder. Frequent meetings are held."

FOR YOUR FILES

ES '70 DOCUMENTS, FILM: *[PARTNERSHIP FOR LEARNING,* a new filmstrip-tape presentation of ES '70, is now available on request.] Information on availability of reports, films, booklets may be obtained from: E. F. Shelley and Company, Inc., 866 United Nations Plaza, New York City 10017.

ES '70 CALENDAR – 1969: March 5-7 – ES '70 Network Meeting, San Antonio, Texas; June 26-27 – ES '70 Network Meeting, Quincy, Massachusetts. Executive Committee meets monthly.

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EDUCATIONAL SYSTEM FOR THE SEVENTIES
ES '70
A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

NEWS

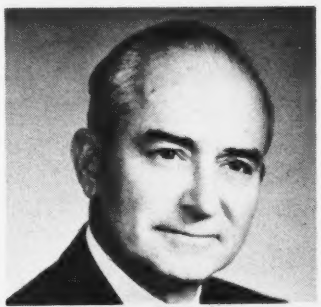
VOLUME 1 – NO. 9

APRIL, 1969

ES'70 PROGRESS REVIEWED AND PRIORITIES RECOMMENDED AT MEETINGS IN TEXAS

Hugh Livingston

Joseph P. Leyva


Glenn Fletcher

Eliot G. Spack

Ronald Lippitt

ES '70 is a "rallying point" for change and innovation in our schools, as well as a program whose full potential is still to be realized, according to views expressed at the March ES '70 meetings in Texas.

Creating alternate routes for the establishment of curricular performance objectives, hastening work in evaluation and in developing models for appropriate school management for ES '70 were among the priority recommendations made by the coordinators to the network following the coordinators' meetings in Houston, March 3 and 4.

These recommendations, as well as the incorporation of the network, discussion of future funding of ES '70 projects and a thorough mutual review of the local district programs, were the major business of the total network in San Antonio, March 5-7.

Dr. Hugh Livingston, Superintendent, San Mateo Union High School District, California, served as chairman of the network meetings in the absence of Dr. Ben Wallace, ES '70 Chairman. Three-member teams of coordinators and of superintendents reported back to the total group varying degrees of strength and weakness in advancing the individualization of relevant education for secondary youngsters. Broader involvement with the program at the staff and local supervisory level, increased liaison with professional, business and community organizations, as well as stronger local district and state commitment to ES '70 concepts and objectives, were among the needs still to be accomplished, according to several reporters.

A reactor panel to the team reports included: Father Thaddeus O'Brien, Superintendent of Schools, Chicago Archdiocese, Martin Raila, ES '70 Coordinator in Baltimore, and Charles Mink, ES '70 Coordinator, San Mateo, California.

Continued page 5

San Antonio meeting.

ES '70 NETWORK IS INCORPORATED; SEEKS EXECUTIVE SECRETARY

The ES '70 network has become a corporation according to action taken by the Governing Board at its March meeting in San Antonio, Texas. The action, under consideration by network members for some time, was taken after recommendation by the Executive Committee, which had worked out the form and details over a period of several months. The Board of Directors named in the articles of incorporation to serve until the annual meeting of the Corporation correspond directly to the members of the ES '70 Executive Committee. The President of the Board is Ben Wallace, Mineola, New York, who previously served as ES '70 chairman.

The members of the Board of Directors currently are: John W. Letson, Atlanta, Georgia; Eugene L. Johnson, Bloomfield Hills, Michigan; Gabriel H. Reuben, Willingboro, New Jersey; Hugh Livingston, San Mateo, California; L. V. Rasmussen, Duluth, Minnesota; Carl L. Marburger, Trenton, New Jersey.

Continued page 4

NEWS FROM THE NETWORK

BALTIMORE, MARYLAND — PROJECT MISSION

Coordinator Martin H. Raila sends a report of Project Mission and says, "We are very excited about this project and feel that it has real implications for changing and improving teacher education, particularly for urban children." This project was a prototype of the Teacher Corps, and contains many aspects of the ES '70 elements in staff training.

"Its purpose is to determine the feasibility of attracting outstanding college seniors and graduate students to teach in the inner-city schools of Baltimore City and to provide them with a program of teacher training to develop competence in working with deprived children. The Project was originally funded jointly by the cooperating institutions and the Ford Foundation. Beginning in July, 1968, the Department of Education of Baltimore City assumed the major responsibility of funding from both local and ESEA appropriations. Three colleges – Towson State College, Morgan State College, and Coppin State College – join in a partnership with Baltimore City to carry out this activity. Each college supplies us with a selected number of students and professors. For its fourth year of operation (1968-1969) the Project has increased to 40 the number of interns prepared.

"Intern teachers spend half of each day in teaching activities in the classrooms under the guidance of a master teacher and take their college or graduate course work in the other half. These courses are offered at the public schools in which the interns are teaching, with the professors coming to the schools, rather than the interns traveling to the colleges. Course work focuses wherever possible on the realities of urban teaching and emphasizes field work. Principles and Methods are taught in relation to the needs of urban pupils.

"The program is a rigorous one and requires considerable dedication and commitment on the part of the intern teachers. For this participation, intern teachers now receive annual stipends of $1500 for seniors and $2000 for graduate students.

"There are a number of unique features about the program:

1. Each intern teacher is expected to spend two afternoons a week in tutorial or remedial work with the pupils in his class.
2. On Saturdays, interns are expected to provide enrichment experiences for their pupils. Three buses are available for their use, and funds are provided to defray partially the cost of the trips, or other activities (theater, concerts, movies, etc.).
3. Theory and practice are closely related. Students may discuss in their professional classes activities which they will put into practice in their teaching activities the following day.
4. Demonstrations are held weekly. Elementary school intern teachers sometimes observe in the junior high school and the junior high school interns observe in the elementary school. This procedure provides a kind of vertical articulation which is extremely valuable for a better understanding of the total school program.
5. A strong program of in-service growth for the cooperating (master) teacher is carried on.
6. Intern teachers completing the program are given preferential treatment in assignments to teaching positions and they continue to work in after-school meetings, demonstrations, and problem clinics.
7. Considerable emphasis is placed on innovation and experimentation in an attempt to find better methods of reaching deprived youngsters, curriculum content more relevant to their needs, and materials more appropriate to their learning styles. Some of the interesting ventures we have tried are:
   - Inquiry training
   - Paperback-magazine saturation of classrooms to promote greater interest in reading
   - Micro-teaching
   - Television recording for the evaluation and improvement of instruction
   - Use of simulated educational games
8. There is a strong research program written into the proposal. Seven different research studies are currently being conducted to determine the effectiveness of the program and its impact on teacher training. In addition, ancillary research and experimentation by professors, cooperating teachers and intern teachers are being carried on quite independently of the formal research activity."

BREATHITT COUNTY, KENTUCKY;

Reports on the teacher training program on writing performance objectives brings this statement from Coordinator William Ryan:

"One of the assignments for the teachers was the preparation of a completely written behavioral objective for one of their own classes, including the rationale to the student for the objective and a clear statement to the student on how he would be evaluated upon his attainment of the objective. As expected by this office and by the interuniversity staff, teachers brought back reports to their groups which included: (1) The role of the student in the educational process was clarified; (2) In all cases a higher than expected achievement level was attained; (3) Unexpected talent was demonstrated by some students who has no previous record or indication of such talent; (4) Class structure became better organized; (5) The student understood his objective and exactly what was expected of him; (6) Better understanding developed between pupil and teacher; (7) Self realization by the student of his capabilities."

ES '70 NEWS

ES '70 NEWS is published at regular intervals during the school year to keep readers up to date on current ES '70 activities and progress. Examples of representative activities are reported in each issue.

ES '70 NEWS is prepared under the supervision of the ES '70 Executive Committee by E. F. Shelley and Company, Inc. Additional copies may be secured from E. F. Shelley and Company, 866 United Nations Plaza, New York, New York 10017.

RESEARCH DERIVATION AND ACTION PLANNING

A Seminar Led By Dr. Ronald Lippitt – University of Michigan

Dr. Ronald Lippitt, University of Michigan behavioral scientist, led a seminar on "Research Derivation and Action Planning" at the March meeting of ES '70.

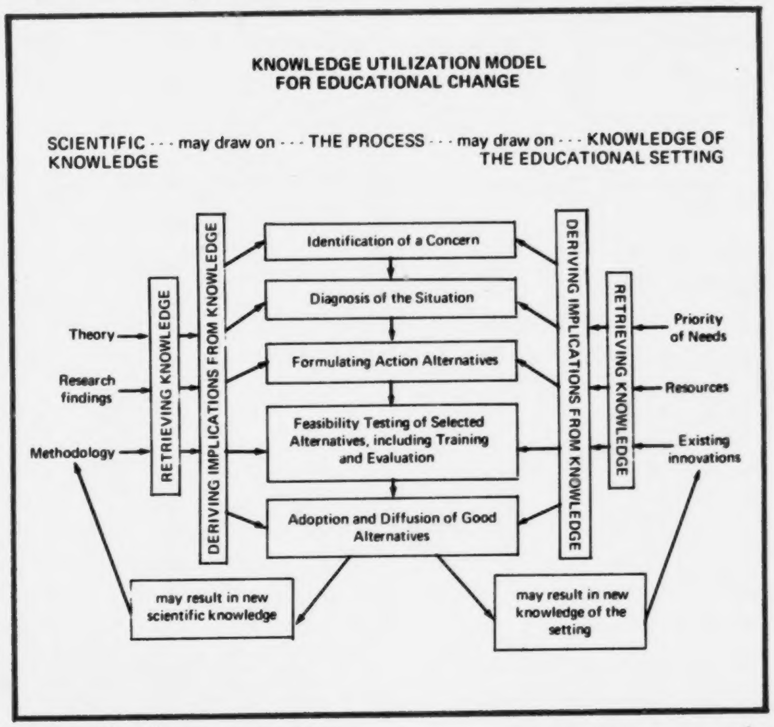
The exercise was designed to overcome the "knowledge utilization gap" which presupposes that we do not routinely have the techniques to utilize effectively what we already know; i.e., information collected in libraries, research reports, professional publications or that information which resides with people. Some of the available information is in non-usable formats; access to some information requires additional manpower which is not usually available.

Seminar participants were given the opportunity to become acquainted with new techniques for mobilizing their internal (80% of innovative ideas come from within the system) and external (community, student, parent) resources to facilitate more effective operation of their schools.

The situation presented to the superintendents and coordinators involved the following situation:

"The school administrator and his staff are trying to think through the question of whether, and to what degree, students and parents should be actively involved in policy making, program planning, and program operation.

"In order to think this question through they have asked help from an ERIC Center to scan for relevant resource knowledge that might help guide their thinking."


KNOWLEDGE UTILIZATION MODEL
FOR EDUCATIONAL CHANGE
SCIENTIFIC KNOWLEDGE · · · may draw on · · · THE PROCESS · · · may draw on · · · KNOWLEDGE OF THE EDUCATIONAL SETTING
Theory
Research findings
Methodology
RETRIEVING KNOWLEDGE
DERIVING IMPLICATIONS FROM KNOWLEDGE
Identification of a Concern
Diagnosis of the Situation
Formulating Action Alternatives
Feasibility Testing of Selected Alternatives, including Training and Evaluation
Adoption and Diffusion of Good Alternatives
DERIVING IMPLICATIONS FROM KNOWLEDGE
RETRIEVING KNOWLEDGE
Priority of Needs
Resources
Existing innovations
may result in new scientific knowledge
may result in new knowledge of the setting

Eighteen samples of research-based generalizations were presented to the group by Dr. Lippitt, who then worked through the micro-derivation and planning processes regarded as appropriate for disseminating and utilizing the knowledge inputs available to them.

A schematic presentation of this process was prepared for the seminar by Dr. Lippitt and is reproduced here. (See diagram) The sample generalizations follows:

A Sample of Research Based Generalizations

1. A majority of high school students do not see student government as a significant channel of influence on the administration and operation of the school.
2. One study says the typical student is alienated from any significant contact with or commitment to the school as a community; another study of a different sample of high schools using different inquiry methods finds that superior students are highly involved, like their school teachers, but their high involvement is "in the wrong aspects of life, i.e. getting good grades instead of having meaningful educational experiences . . . . . There is non-alienation in spite of triviality of work and powerlessness of role."
3. A significant number of student activists have high academic ability, a high motivation for education, and come from homes with liberal parents and high freedom of communication.
4. Negative attitudes toward school, teacher and learning are associated with low utilization of intellectual capacity in learning tasks.
5. There is a high relationship between self-perception of potency to influence one's environment and openness to learn from it (Douglas McGregor's generalization is: The child or youth is open to learning from the adult to the degree he perceives the adult as open to influence from him).
6. Perceiving self as barred from significant influence leads to two patterns of response, (a) withdrawal from involvement and commitment; (b) hostile attacks on the sources of power, either overt or covert.
7. In high conflict situations the conflicting persons or subgroups have a constriction of perceptual field so that they see few alternatives for action, and the more primitive alternatives of direct aggression are most available.
8. Voluntary involvement in decision making is highly related to degree of commitment to help implement the decisions or accept the consequences of the decisions.
9. To a significant degree the influential leaders in various segments of the peer culture are not involved in student government or other aspects of the official operating structure of the school.
10. Many teachers, particularly in lower socio-economic areas, see themselves as substitutes for inadequate parents and homes.
11. Large proportions of parents in most school districts do not see involvement in school programs as a relevant interest or possibility; few have ever had the experience of being asked to be involved in or connected with school operation.
12. Most school administrators and teachers do not see parents or students as relevant resources for collaboration in educational program planning and decision making.
13. Very few innovations have been attempted in the area of identifying, recruiting, and training youth power figures and parent power figures in the knowledge and skills of collaborative school planning.
14. The growing population of elder citizens are limiting the financial development of school programs by their voting against increases in tax support.
15. There is a high relationship between self-perceptions of power to influence and commitment of energy and

Continued page 8

ES '70 INCORPORATED *(Continued)*

The present members of the Corporation, all of whom are voting members are: John W. Letson, Thomas D. Sheldon, Eugene L. Johnson, Marie R. Turner, Paul E. Smith, Warren G. Smith, Glenn Fletcher, Otty R. Norwood, Ben Wallace, Harold C. Rapson, Mark R. Shedd, Joseph P. Leyva, Hugh Livingston, Gabriel H. Reuben, L. V. Rasmussen, Father Thaddeus O'Brien, Norman Hamilton, Lawrence P. Creedon, Carl L. Marburger. A class of non-voting members was also created.

Named *ES '70,* the new formal entity is a non-profit membership corporation incorporated under the laws of the District of Columbia.

It is the intention of the new Corporation to secure the services of an executive-secretary to carry out the policies and programs established by ES '70. A search is currently underway to fill this newly created position. The members voted to finance temporarily the salary and office required by sliding-scale payments from the participating school districts.

The decision to restructure the ES '70 network followed on discussions concerning the ways in which the objectives of the program could be advanced most expeditiously. It was the consensus that a formal separation of the program from the direct aegis of the Bureau of Research in the U.S. Office of Education would permit other bureaus and divisions in the Office of Education to join the Bureau of Research in participation in the program as well as other agencies of the federal government. It would also encourage more direct local action and state participation in support of ES '70 and would make it possible to secure broader financing from foundations or other sources.

The expectation, according to this consensus, is thus to enhance the program by strengthening and broadening the participation of each of the partners at the local, state and federal levels.

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HIGHLIGHTS OF TEXAS MEETINGS
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(1) Father Thaddeus O'Brien, William Phinney, Gabriel H. Reuben, Charles Mink; (2) David S. Bushnell; (3) Frank Wesley, Martin Raila, George Love, Arthur Wo
(5) Lane C. Ash; (6) Warren Smith; (7) Gabriel H. Reuben; (8) Martin H. Raila; (9) Ronald Lippitt; (10) Otty R. Norwood; (11) William Reed, Eugene L. Johns
Livingston; (18) George Love, Otty R. Norwood, William Hetrick, Kenneth Smith; (19) Riding through San Antonio; (20) Thomas Dietz, Glenn Hill, William R

NETWORK CONVENES IN SAN ANTONIO, COORDINATORS IN HOUSTON *(Continued)*

ES '70 was seen by Father O'Brien as an opportunity to reconnect himself with young people, "really to relate all of my duties, thinking and consequence of my actions to the needs of the young people in our schools, and to perceive my administrative role in a new, more relevant and effective fashion."

Father O'Brien also commented on the new insights participants "stumble" upon by virtue of their spending time together in work and camaraderie at network meetings. He stated that he regards the present time as a "turning point" for ES '70, particularly at the local level, as we "try to plug in to new coalitions of power as they emerge. These coalitions change constantly," warned Father O'Brien, "and it is our problem to learn how to work with, and move small groups of people as these groups exist at any given moment, if we are to succeed in changing our schools according to the goals of our program."

Mr. Raila cautioned the group to the danger of "losing what we've gained if the impetus and commitment to the goals of ES '70 are weakened. Greater institutionalization of the program," he said, "would protect it from being weakened when there are personnel changes." Mr. Mink told the group it was important to emphasize the goals and not the problems as participants work in their districts.

Speaking on the activities of the Division of Comprehensive and Vocational Education Research, U.S. Office of Education, in connection with ES '70 and federal funding and project implementation, were David S. Bushnell, Director, DCVER, and Robert Pruitt, Deputy Director.

Aspects of the new Vocational Education Act that were significant for ES '70 schools were outlined by Dr. Lane C. Ash, Special Assistant of the Division of Vocational and Technical Education, U.S. Office of Education.

Visitors to San Antonio were greeted by Walter Howard, Director of the Division of Assessment and Evaluation, Texas Education Agency, as well as by the host Superintendent of Schools, Joseph P. Leyva, and Coordinator Lucille Santos of the Edgewood Independent School District.

In Houston Eliot G. Spack, Chairman of the ES '70 Coordinators, served as Chairman for the two day sessions. Hosts there were Superintendent Glenn Fletcher and new ES '70 Coordinator, Arthur Pace. Dr. Franklin Wesley, Principal of ES '70 Booker T. Washington High School in Houston, and previous coordinator in that district, took the participants on a tour of his school.

Visitations to the schools were also featured in San Antonio where the network saw the new ES '70 high school facility in Edgewood. They visited a full-time operating three-channel closed circuit TV studio run by the school district. Several elementary bilingual programs were also observed.

Dr. Ronald Lippitt, University of Michigan, in a special workshop session, led the group through a condensed training experience to simulate a "Research Derivation and Action Planning Session." (A full report and a diagram of the research utilization model will be found on page 3 of ES '70 NEWS.)

Members of the E. F. Shelley and Company staff introduced coordinators to an audio-visual presentation for staff development. It involved new perceptions about the relationships and interactions of the individuals, groups, and situations that impinge upon student learning.

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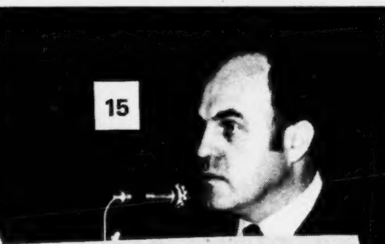

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rd Lucille Santos, James Knuckles; (4) Rear: Beatrice Brennan, Roberta Rubel, Robert Pruitt, Thomas Dietz. Front: Frank Cassetta, William Reed, Donald Kevern;
rw nce Brennan; (12) Eugene L. Johnson; (13) Charles Mink; (14) Harold C. Rapson; (15) Lawrence Creedon; (16) Paul Smith; (17) Robert Pruitt, Hugh
a s Mink, Eliot Spack, George Donahue; (21) Joseph P. Leyva.

INNOVATIONS IN THE NETWORK

The second annual report of innovative programs in ES '70 schools has been published by E. F. Shelley and Company, Inc. for the ES '70 Executive Committee. Reports on individual program projects will be reproduced in ES '70 NEWS from time to time. The following are excerpted from: "PRIMARY NETWORK INNOVATIONS: Second Annual Report, March, 1969."

Monroe Michigan High School students preview their filming project, "Vocational Exploration."

MINEOLA, NEW YORK

HUMANITIES – 12th GRADE: The focus of this ten-week individualized unit is on the meaning and the structure of the artist's work. Works of art such as painting, music, dance, literature, and drama, are seen as aesthetic experiences in the student's life while he is striving for self-identity. The meaning intended by the artist and the meaning derived by the student become parallel, if not always convergent, paths. For the inexperienced student in the arts, a knowledge of what "tool" the artist works with, can be an aid to the discovery of meaning. Concepts of form, levels of reality, functions, materials, techniques, etc. constitute such tools.

In order to bring such an educational learning program into practice, individualized units are being created by the English teacher. These units are tailored to fit into the traditional school-hour day, within the accepted classroom setting. Use is made of poetry material, novels, short stories, slides, and recordings of poetry and music that are already part of the English Department's curriculum material.

Students set their own pace, but they are made aware of a time limit when all work must be completed. They are encouraged to either work alone or in a "buddy" system but are dissuaded from participating in groups of more than three classmates. Depending upon the unit in which they are involved, student relationships are predicated by the particular individualized instructional material.

The end result of this ten-week unit should be a creative piece of work executed by the student in a particular form of his own expression.

A sample of the kind of contract used in this course can be obtained by writing to: Mrs. Harold Fishkin, Mineola High School, Mineola, New York 11501.

PORTLAND, OREGON

COMPUTER MATH: Benson High School, in Portland, is taking its first step into the ever-growing world of computer programming and computer mathematics with a five-month (January through May, 1969) program utilizing the General Electric Time-Sharing Service. This is a direct, "hands on" approach where the student is responsible for his own problem from beginning to end. He writes the program, punches his own tape, runs his own program over the Time-Sharing System, "debugs" his own work as necessary, and sees the problem through to a successful "run". The general topics of machine construction, language and operation are overviewed with the majority of time being spent in a study of the BASIC and FORTRAN compiler languages. It is felt considerable skill in the techniques of computer programming should be realized by the end of the program.

John Adams High School in Portland – Under construction.

The twenty-seven participating students are all advanced senior mathematics students with a good mathematics background including work in matrix algebra. This provides a fertile field in which to teach the art of programming. It also provides a basis upon which to explore more advanced topics (such as infinite series, for example) which lend themselves well to analysis by the computer. After one month of the program, interest is fantastically high. Use of the computer system is "stretching" the budget. Some students are already developing a taste for the computer world and thinking of professional possibilities. The best thing of all, it would seem, is that genuine learning of material which we know is most pertinent to the future is taking place. And it is taking place in a relaxed, cheerful, successful atmosphere. A feeling of achievement permeates the air.

For further information, contact: Mr. Donald Peterson, Curriculum Vice-Principal, Benson High School, 546 N.E. 12th Avenue, Portland, Oregon 97232.

SAN ANTONIO, TEXAS

San Antonio "Partnership Project" Memorial High School Students visit San Rosa Hospital.

PARTNERSHIP PROGRAM: The purposes of this program are: To acquaint the students with the occupations available in their community; to improve their self-image; to raise their aspirational level.

Over an eight-week period all students, grades 9 through 12, are taken out of their environment into the business houses, hospitals, military bases, courts, and city offices, in order to see people working in various occupations. The students will see duties as they are being performed. They learn from the employees what education is needed to qualify for the various jobs; also, which jobs are entry occupations.

The Program is planned on a cooperative basis with representatives of all the agencies to be involved, teachers and students leaders. Meetings are held before the program begins and during the project. After its termination, evaluation conferences are held and a formal and informal evaluation is held with students and teachers participating.

The students learn some occupations they did not know about; where they might apply for a job after completing the educational requirements. Others learned where they did not want to go to work because of low pay or poor working conditions. Many students request counseling appointments to re-evaluate their high school plans for graduation.

PHILADELPHIA, PENNSYLVANIA

CAREER DEVELOPMENT PROGRAM: The Career Development Program in the Elementary Schools is called "Room to Grow." It provides exposure to possible career choices from the earliest years of the child's school life. In the Junior High School Program, called "Time to Explore," he has access to a Career Development Laboratory, visits nearby industries and business corporations, and hears lectures on career choices from their representatives. The Senior High School Program, still in the planning stage, will include actual work experience correlated with the high school curriculum.

For further information, contact: Mr. William Jones, Director, Educational Information Services, Philadelphia Public Schools, Parkway at 21st Street, Philadelphia, Pennsylvania.

SAN MATEO, CALIFORNIA

SOCIAL SCIENCE PROGRAM REDESIGN: The *Capuchino Social Studies Redesign Project* has as its primary goal the redesign of the present, three-year, traditionally oriented program. The first phase of the project is to identify departmental goals and then develop a ninth grade social studies program which begins the student on the road towards the goals developed through the joint efforts of the professional staff, the students, and the community. A longitudinal field experiment has been developed which will assess the quantitative and qualitative behavioral changes which may occur in both the experimental and control groups.

The major features of the program now being implemented are indicated in the following problems to which the program is being addressed. The program is designed to test out whether or not the student will acquire a stronger interest in continuing and self-directed learning

(1) if he plays a more active and responsible role in the learning process (i.e.: being involved in the process of what to study and how to go about it — this will also include peer group and cross-age teaching),

(2) if he is involved in a curriculum program which provides maximum opportunity for community involvement (i.e.: inter-school exchange programs and participation in conservation, local, and regional government organizations),

(3) if he is enrolled in a curriculum which emphasizes participation in small group activities (which would include behavioral studies of such groups),

(4) if he is enrolled in a curriculum program which utilizes the "process" approach in the teaching of problem skills (which includes all of the various communication skills).

HOUSTON, TEXAS

From algebra to art: Students from Booker T. Washington High School (Houston) work on electronics project, algebra problem and pottery design.

NEW NAMES IN THE NETWORK

Robert W. Blanchard

Robert D. Christiana

Portland, Oregon has announced the appointment of **Dr. Robert W. Blanchard** as Superintendent of Schools to replace Dr. Melvin W. Barnes who resigned from the system to assume duties as chairman of the editorial boards of Scholastic Magazines, Inc., in February. Dr. Blanchard is currently Superintendent of Schools in Montclair, New Jersey. He will come to Portland on July 1.

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Dr. Harold C. Rapson, Superintendent of Schools in Monroe, Michigan, has announced his intention to retire at the end of the school year; Robert D. Christiana, presently serving as Assistant of Instruction and Personnel, has been appointed Dr. Rapson's successor, effective July 1st. Mr. Christiana has been actively involved in Organic Curriculum development in Monroe High School and has given his full support to Monroe's continued and active involvement in the ES '70 Network.

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Dr. Jack P. Nix, State Commissioner of Education in Georgia, has resigned from the ES '70 Executive Committee because of the press of duties in his home state.

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Thomas Dietz *is appointed ES '70 Coordinator in Willingboro, New Jersey following the resignation of John Rosser to become Executive Director for the New Jersey Regional Educational Improvement Center in Glassboro.*

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The School Board of Quincy, Massachusetts has announced the the appointment of **Stewart S. Sargent** to be the ES '70 Coordinator. Mr. Sargent was formerly the K-12 Coordinator for mathematics and science in the Quincy schools and prior to that was with the Massachusetts State Department of Education as Senior Supervisor in math and science. He replaces Dr. Lawrence Creedon who was appointed Superintendent.

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Named as ES '70 Coordinator, Houston, Texas is **Arthur L. Pace**, *who succeeds Dr. Frank B. Wesley, who had served until recently as ES '70 Coordinator in that district in addition to his responsibilities as principal of the Booker T. Washington High School.*

RESEARCH DERIVATION SEMINAR *Continued*

responsibility to learn about issues, consequences, alternatives of deciding and acting.

16. The educational experiences of children, youth and adults almost never contain any curriculum offerings in training for social problem solving, conflict resolution, conflict management, the skills of creative compromise, etc.
17. The best predictions seem to be that the youth power movement will continue to move down from higher education to secondary and elementary education.
18. The increase in leisure time and earlier retirement means that an increasing number of competent, vigorous elder citizens, male and female, have more time for volunteer work of some kind in the community.

FOR YOUR FILES

ES '70 DOCUMENTS, FILM:

[*PARTNERSHIP FOR LEARNING,* a new filmstrip-tape presentation of ES '70, is now available on request.]

Information on availability of reports, films, booklets may be obtained from: E. F. Shelley and Company, Inc., 866 United Nations Plaza, New York City, 10017.

ES '70 CALENDAR – 1969

June 26-27 – ES '70 Network Meeting, Quincy, Massachusetts

Executive Committee meets monthly.

EDUCATIONAL SYSTEM FOR THE SEVENTIES • A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION

ES '70 NEWS

VOLUME 2 – NO. 10

MAY-JUNE, 1969

RECOMMENDATIONS FOR CHANGE SLATED FOR REVIEW AT THIRD ANNUAL ES '70 MEETING AT WILLINGBORO

Two days of intensive self-evaluation are on the agenda for the third annual meeting of the ES '70 network in Willingboro, New Jersey on June 26 and 27, 1969.

"We are going to pause, take a hard look at what we have accomplished, and reconsider our goals and objectives," says President Ben Wallace, Mineola, New York, in announcing plans for the meeting. The anticipated result, says the outgoing President, is a "tighter, more sharply focused program for 1969-70."

Carl L. Marburger

Dr. Carl L. Marburger, Commissioner of the New Jersey State Department of Education, will welcome the participants on behalf of his state. Dr. Gabriel Reuben, Superintendent of Schools of Willingboro, New Jersey, and Coordinator Thomas Dietz, will host the meeting to be held at the Memorial Junior High School. An earlier schedule called for the sessions to be held in Quincy, Massachusetts.

Also on the order of business for the June meeting is the election of a new Board of Directors and a slate of officers for the ES '70 Corporation from among the members of the network. A new chief state school officer will be elected to replace Dr. Nix of Georgia who resigned earlier this year.

The major business of the meeting, however, will be intensive discussion of the recommendations that have been made in the light of the experience of the two years since the ES '70 program was initiated. These include revision of some procedures, and programs for expanded financial support. A renewed focus on the concept of the organic curriculum has been urged on the network, and a recommendation has been made for a redefinition of relationships which will permit quicker impact on local district instructional programs of ES '70 goals.

Concern about the order of priorities in program development, about the past and future allocation of funds, about changes in the nature of ES '70 from its original conceptualization, about the relationships of the local districts to the universities who hold the bulk of the research contracts, about the establishment of performance objectives as the basis for new curriculum development, are among the subjects which have been under critical discussion during the

Continued page 4

Gabriel H. Reuben

David S. Bushnell

FORD FOUNDATION, BUSHNELL TO BE HONORED

Citations to the Ford Foundation and the DCVER Director David S. Bushnell will be made by ES '70 at its June annual meeting.

The decision to honor the Foundation and the U.S. Office of Education official was made by the Board of Directors of ES'70 in recognition of the special contribution each has made to the advancement of education in the United States.

The Ford Foundation, in its grant program, has spurred many new developments in education. Particularly relevant to ES'70 was the effort initiated by Ford in 1963 to help improve vocational and technical education in the United States, "to assist and encourage improved means of preparing American youth for productive jobs in a rapidly changing labor market and motivating them to greater educational accomplishment." Marvin Feldman, Program Officer of the Ford Foundation, is a member of the ES '70 Curriculum Advisory Committee.

David S. Bushnell will receive a plaque noting his "inspired leadership in developing ES '70." The conceptual base of ES '70 was developed under Mr. Bushnell's leadership in the Division of Comprehensive and Vocational Education Research in the U.S. Office of Education. The impetus for the creation of a local-state-federal partnership to develop a new educational system for the seventies was initiated in DCVER and the first organizational meeting for the ES '70 network was held under the Division's sponsorship.

DULUTH CITED FOR INDIVIDUALIZED INSTRUCTION. *The Duluth Schools received an award as the outstanding public organization for the school year 1968-69 from the National Society for Programmed Instruction. Dr. John Runquist, Vice-President of the Duluth Board of Education, was at a recent meeting of the society in Washington, D.C. to receive the award. The award reads: "To the dedicated teachers and staff of the Duluth Project Schools for their design and implementation of a comprehensive program of individualized instruction."*

CIVIC PARTICIPATION AND EDUCATION IN A CRISIS AGE

By
John P. DeCecco, Visiting Professor
Columbia University

The high school protest movement has now erupted. There have been 361 disruptive cases in the first four months of the present school year dealing with student involvement in decision-making (Westin, New York Times, May 9, 1969, p. 2):

Type of Protest	*Number of Incidents*	*States Involved*
Racial	*132*	*27*
Political (including Vietnam)	*81*	*21*
Against dress regulations	*71*	*25*
Against discipline	*60*	*28*
For educational reforms	*17*	*14*

The Center for Research and Education in American Liberties at Columbia University and Teachers College, as one of the research centers in the ES '70 program, is attempting to determine what the diversity of objectives for civic education in a variety of communities and schools should be for a decade (the 1970's) which will experience radical institutional change. The project co-investigators are Professors Alan F. Westin (public law and political science), Louis Levine (clinical and social psychology), and John DeCecco (constitutional history and educational psychology). A research team of forty graduate students is collecting data in the schools.

The project has five phases, each of which culminates in the products necessary for the succeeding phase: (1) the preparation of a substantive document, *Civic Participation and Education in a Crisis Age,* (2) the collection of data on the dilemmas of school governance as perceived by students and teachers; (3) the reduction and analysis of data through the use of content analysis; (4) the writing of performance objectives for civic education based on the content analyses; and (5) the preparation of a handbook on objectives for the new civic education for ES '70 schools.

The substantive document develops the theme that there is an increased demand by all parts of the citizenry for participation in decision-making in all areas of public and private institutional life. Some visible aspects of this demand are the development of individual life-styles, the sharp rise in anti-system and extra-system activity, the growing challenge to the middle-class ethic of achievement and high economic priorities and widespread role ambiguity. The rising demand for participation in the political and social mainstream contributes to and results from the racial technological, generational and international crises. The document identifies four major dimensions of civic participation — individual and group decision-making, right to dissent and free expression, equality of political and social opportunity, and due process in the protection of individual rights. *It views civic education less as an appropriate selection of factual content, more as one of concepts and teaching strategies, but chiefly as modes of interpersonal interaction and participation in real school governance which an altered educational framework should encourage.*

The project is now in its second or data collection phase. To discover an empirical base for the themes and categories of the document and to provide the validation necessary for writing the performance objectives, students in the greater New York City and Philadelphia areas have been asked to describe "dilemma incidents," a school situation which left them with at least two alternative responses and in which the democratic "thing to do" was not entirely clear. A preliminary content analysis shows that students recall incidents involving dress codes, smoking rules, school absence, enforcement of discipline, classroom authority structure, school government and so on. After relating the incident, by using ranks from 1 to 4, the student classifies the incident along the four dimensions of civic participation described above. By the end of May we will have collected about 6,000 protocols from urban and suburban elementary, junior high and senior high schools, public and private, comprising an extensive mix of socioeconomic status, race, nationality, religion, and entrance requirements.

Raters, in phase three, will use four types of codes in analysing the incidents. The *participation* codes will enable us to determine the level of agreement for the four dimensions of civic participation. The *process* codes will reveal how students perceive conflict situations and conflict resolution. The *content* codes will tell us around which issues the dilemmas center. The *affect* descriptions, developed by small group rater sessions, will reveal how affect differs with respect to each type of code and the categories within codes.

Our collection of data probably represents the single most abundant source now available of information about the breakdown of school governance and interpersonal relations as perceived by students and teachers and represents a rich basis for carrying out the project mission: the formulation of performance objectives for civic education in the 1970's. Our present plans should make project materials available for circulation in the early months of 1970.

The Center for Research and Education in American Liberties, established in 1965, seeks basic reform in civic education. Its core staff consists of scholars, educators, and research assistants engaged in several other projects: the study of school conflict and conflict resolution, the development of public support for school innovation, and creation of model teaching and administrative programs. The Center's National Advisory Board consists of ninety members, including Senator Eugene McCarthy, Jacqueline Grennan, Mrs. Fred Harris, Senator Mark Hatfield, Dr. Eugene Carson Blake, John Brademas, Richard Cornvelle, Ben W. Heineman, Walter Lippmann, Constance Baker Motley, Elmo Roper and John Cardinal Wright.

SUMMER TRAINING OPPORTUNITIES LISTED FOR ES '70 PERSONNEL

A number of special institutes for ES '70 personnel have been arranged for the 1969 summer.

A workshop for principals of ES '70 schools will be conducted in Duluth, Minnesota, July 21 – August 1, on the campus of the College of St. Scholastica. The purpose of the workshop is to help principals develop strategies for implementing characteristics of an ES '70 school. It is expected that state education department representatives will also participate in the Duluth Institute. John Muldoon, ES '70 Coordinator in Duluth, will serve as Institute Director.

A conference on "Computer-Assisted Guidance Systems and Their Implications for Counseling Practice and Education" will be held June 22-27 at Harvard University Graduate School of Education under the leadership of Dr. David Tiedeman and Dr. Rhoda Baruch. This is an invitational conference. The following ES '70 school districts have been selected by the ES '70 Board of Directors to participate: Portland, Oregon; Quincy, Massachusetts; Houston, Texas; Duluth, Minnesota; Willingboro, New Jersey; and Philadelphia, Pennsylvania.

It is the purpose of the Harvard conference to increase the working counselor's understanding of the rapidly developing computer-based systems for guidance and counseling services and to clarify issues relating to how these systems will fit into an individual progress instructional environment. Three representatives will attend from each of the selected districts.

An institute in the "Teaching of Secondary Reading" will be held at Capuchino High School (San Mateo Union High School District, California), with support from the Educational Professional Development Act. Priority will be given to ES '70 districts in the selection of participants.

A workshop institute for curriculum leaders is also in development. Details of time and place will be available at the annual meeting of the network in Willingboro, New Jersey.

Related to ES '70 training opportunities are thirteen individual short-term training programs for professional personnel development in vocational and technical education which have been approved for 1969. A memorandum describing the topics, location and tentative dates is available from the Division of Comprehensive and Vocational Education Research of the Bureau of Research, USOE. Chief State School Officers and State Directors of Vocational Education also have the information available. These training programs are being supported under the Education Professions Development Act.

GROWING DEBATE ON COMPUTERS AND COUNSELING DRAWS COMMENT

A growing literature on guidance and counseling systems includes discussion of the application of technology and systems approaches to this area of educational activity. Much debate centers on whether or not "technological" techniques depersonalize the relationship between student and counselor or enhance it.

The April issue of THE REVIEW OF EDUCATIONAL RESEARCH is devoted to guidance and counseling. It includes a chapter by Professors William W. Cooley and Raymond C. Hummel of the University of Pittsburgh entitled *Systems Approaches in Guidance.*

The authors view the new emphasis on systems approaches and accompanying research and development in guidance and counseling as a healthy sign. They caution researchers to be realistic in their time and money expectations and remind them that it is a "long row to hoe and the promise of the systems approach is to facilitate the hoeing."

Professors Cooley and Hummel also comment on the debate:

> "The practice of guidance in America has been firmly committed to individual freedom, initiative and responsibility in personal planning and decision-making. Counseling, by definition, requires a human relationship in which the counselee feels free and responsible for the process and outcomes. A highly systematic, technologically-supported program of guidance services may appear to contradict such a commitment. All social and technological change is accompanied by the risk of depersonalization and the sacrifice of personal freedom to the demands of a system. The history of education demonstrates this risk all too persuasively.
>
> *"The problem, however, lies not in sophisticated technology, but in the leadership and organization of the social system that supports the technology.* The systems development in guidance to date does not seem to have aggravated the problem of freedom. The guidance systems rather are aimed toward fostering individual information-seeking and decision-making. In fact, by providing the individual with more powerful media for exploring the meaning of information as it applies to him, and by permitting counselors and teachers to be the student's collaborators in interpreting the information, the new guidance systems may serve to expand rather than constrain personal freedom."

Orders for the REVIEW may be sent to the Executive-Officer of AERA at 1126 16th Street, N.W., Washington, D.C. 20036.

Single copies are $3.00 each.

ES '70 NEWS

ES '70 NEWS is published at regular intervals during the school year to keep readers up to date on current ES '70 activities and progress. Examples of representative activities are reported in each issue.

ES '70 NEWS is prepared under the supervision of the ES '70 Board of Directors by E. F. Shelley and Company, Inc., 415 Madison Avenue, New York, New York 10017.

INTENSIVE REVIEW OF RECOMMENDATIONS FOR CHANG

Continued from page 1

past several months. They were the basis of long term planning meetings held in Washington, on May 8 and 9, 14 and 15, and will be the basis for planning of the agenda for the Willingboro meeting.

The specific agenda for Willingboro is being developed by a committee appointed by the Board of Directors. The committee consists of President Wallace, Coordinators' Chairman Eliot Spack, USOE representative David S. Bushnell, and Dr. George Donahue of E. F. Shelley and Company.

The planning meeting of May 8 and 9 was called by Robert Pruitt, Deputy Director DCVER, of the U.S. Office of Education at the request of the ES '70 coordinators. Present at that meeting were: Mr. David Bushnell, Mr. Robert Pruitt, Dr. Duane Nielsen and Miss Roberta Rubel from the U.S. Office of Education; Mr. Eliot Spack, Miss Marilyn Wendt, Mr. Kenneth Smith, Mr. George Love and Mr. William Ryan who represented the ES '70 coordinators; Dr. Robert Morgan (Florida State University), Dr. Edward Morrison (Ohio State Center), Dr. Bruce Tuckman and Mr. Joseph Casello, (Rutgers University), Dr. James Popham (UCLA, Center for Evaluation); and Dr. George Donahue, Mr. Lewis Rhodes, and Beatrice Brennan of E. F. Shelley and Company.

In the discussion that ensued, two divergent points of view emerged. The universities proposed that several single concept or multi-concept centers be located at specified universities to which the nearby local schools could relate and at which strategies for change be developed rather than sets of performance objectives.

The coordinators questioned the ability of the universities to work closely with the districts in ways which could satisfy immediate local needs, citing the fact that interested and motivated local faculties are crying out for materials to use now in their classrooms. They seek adequate funding for local efforts which can satisfy immediate needs and which can be subsequently related to more sophisticated materials which are expected to emerge from the university long-term projects.

Two days of discussion concluded with a decision to send the Board of Directors of ES '70 Corporation the following recommendations:

"1. that the bank of performance objectives being collected at the University of California under the direction of Dr. James Popham be sustained and possibly expanded to include vocational areas;

2. that Project SCOPE at Rutgers under the direction of Dr. Bruce Tuckman be given continued funding to develop the process to be used for the integration of performance objectives;

3. that a number of regional, multi-concept, university-based centers be identified by the ES '70 network and requested to draw up proposals for working in partnership with groups of ES '70 schools and for the implementation of the overall ES '70 design;

4. and that the ES '70 Corporation draw these proposals together into one overall proposal to be submitted to the U.S. Office of Education by September, 1969."

The planning meetings of May 14 and 15 were initiated by Dr. Ben Wallace and were chaired by Eliot Spack, Chairman of the Coordinators' Steering Committee. Present in addition to Mr. Spack were two members of the Board of Directors, Dr. Reuben of Willingboro and Dr. Hugh Livingston of San Mateo, California, and ES '70 Coordinators Martin Raila of Baltimore, Maryland, Charles Mink, San Mateo and Thomas Dietz of Willingboro. Also present were Dr. George Donahue, Lewis Rhodes and Beatrice Brennan of E. F. Shelley and Company.

This group agreed to recommend that the June meeting provide an opportunity for the network to discuss the following:

"A. ES '70 is at a turning point in its history. We feel its basic educational goals and objectives need to be re-examined to determine:

1. Should consideration be given to including all levels of education, pre-school through grade 14?
2. Should the emphasis be somewhat re-directed toward less of a concentration on methods and materials and more on relationships and the application of what research in child development, psychology, and pediatric psychiatry have to say? This has great implications for staff development along lines different from present ES '70 efforts in

BOARD OF DIRECTORS MEET ON OTHER CORPORATION MATTERS; INDIAN SCHOOL REC

April

Dr. Ben Wallace was elected President of the ES '70 Corporation and Dr. George Donahue, Secretary *Pro Tem,* at a special meeting of the Board of Directors held in Washington, D.C. on April 18, pursuant to Article III, Section I of the by-laws. The special meeting was attended by Dr. Gabriel Reuben, Willingboro, New Jersey; Dr. L. V. Rasmussen, Duluth, Minnesota; Dr. Eugene Johnson, Bloomfield Hills, Michigan; Dr. Carl Marburger, Commissioner of Education, State of New Jersey; as well as by Dr. Wallace of Mineola, New York and Dr. Donahue of E. F. Shelley and Company, Inc.

The by-laws presented to the members of the Board were discussed and adopted, a certificate of membership unanimously approved, a corporate seal unanimously approved and appropriate banking resolutions approved.

May

Dr. Eugene Johnson, Bloomfield Hills, Michigan, was elected Chairman and Father Thaddeus O'Brien, Archdiocese of Chicago, Illinois, and Dr. L. V. Rasmussen, Duluth, Minnesota were elected as members of the Nominating Committee of the ES '70 Corporation at the regular May meeting of the Board of Directors. The committee will present its report to the annual meeting of the network in Willingboro, New Jersey, June 26, 1969. Elections will take place at that time for members of the Board of Directors and for officers of the Corporation.

Certificates of membership for the 18 school district superintendents and one chief state school officer were signed at the May 16 meeting of the Board of Directors and forwarded to the members.

ED FOR ANNUAL MEETING

staff development. It has serious implications for a curriculum development effort. Certainly, experts in these areas should be drawn upon for in-puts in connection with our curriculum efforts which are being developed to be teacher proof when as a matter of fact they should be more child proof.

B. A mechanism needs to be developed to pull together those educational practices already in operation as a result of previous R&D efforts and found to be successful for dissemination to the network."

Dr. Reuben suggested that the concern expressed at that meeting is "to change the educational environment, including elements of time, place, people and materials to make it respond to the needs of each child."

Also reported by Mr. Spack was the group's concern over widespread differences in commitment and effort among the participating districts, different views of what the program should be, need for better sharing of process and product among the participating members, and certain essential needs which the group had expected to be met by the U.S. Office of Education.

In this connection, the group expressed particular need for improved reporting by USOE of research relevant to ES '70, the need for creation of business and lay advisory boards, for evaluation of available educational products, for a revival of work on accreditation criteria, for attention to the education of the handicapped as well as the disadvantaged in ES '70 schools, and a need for funding for writing of performance objectives in six academic and at least one vocational area. Lastly, the group expressed a need for "coming to grips quickly with an overall evaluation design" and urged "in this connection that serious consideration be given to the educational audit report previously submitted to the superintendents and the Board of Directors by E. F. Shelley and Company."

In addition to Superintendents and Coordinators, representatives of the 15 State Education departments whose local school districts are in ES '70, officials of the U.S. Office of Education and staff of E. F. Shelley and Company, will be present for the annual meeting.

DED FOR INCLUSION IN NETWORK

Fourteen of the school districts have made commitments so far to support financially the office of Executive Secretary on an interim basis while long-term arrangements for further support for ES '70 are being developed.

The Board of Directors for ES '70 also at its May meeting, voted to recommend that the Indian School at Santa Fe, New Mexico, be admitted to the primary network. The presentation to the Board of Directors in April, requesting consideration of the school, was made by Mr. Charles Zellers, Assistant Commissioner, Bureau of Indian Affairs, Department of the Interior, and Dr. Henry Rosenbluth, Program Specialist. The school was recommended for its innovative character and is believed to be an appropriate and unique setting for developing and validating various aspects of the ES '70 program.

NAMES IN NETWORK NEWS

Dr. James E. Allen, Jr. has assumed office as U.S. Commissioner of Education and Assistant Secretary, Department of Health, Education and Welfare, following his confirmation by the U.S. Senate.

Dr. Norman J. Boyan *has resigned as Associate Commissioner, Bureau of Research in the U.S. Office of Education, to become Dean of the Graduate School of Education, University of California in Santa Barbara, No replacement has been announced as yet.*

Dr. James E. Allen, Jr.

David S. Bushnell, Director of the Division of Comprehensive and Vocational Education Research, Bureau of Research, U.S. Office of Education, has been granted a leave of absence, beginning July 1, 1969, to accept a one-year fellowship at the Battelle Memorial Institute, Washington, D.C.

Dr. Norman Hamilton *has been serving as Acting Superintendent of Schools in Portland, Oregon, since the resignation of Dr. Melvin Barnes.*

Dr. L. V. Rasmussen has resigned as Superintendent of Schools, Duluth, Minnesota, effective June 30th, to join the faculty at Florida State University as Head of the Department of Educational Administration. He has served as a member of the ES '70 Executive Committee since its formation and as a member of the Board of Directors since the incorporation of the network. Dr. Rasmussen is President of the Aerospace Education Foundation.

"IT WORKS"

Twenty compensatory education projects identified by researchers as having "produced significant achievement" among educationally deprived children are described in detail in a series of twenty booklets issued by the USOE. Described by John F. Hughes, director of USOE's Division of Compensatory Education, as representative of the diverse array of compensatory programs in the nation, the booklets review six preschool programs, nine elementary, three junior and senior high school programs, and two on projects that span kindergarten through 12th grade.

The booklets, available from the United States Printing Office, Washington, D.C. are:

Academic Preschool, Champaign, Ill., 21 p., OE-37041, 35 cents; *Diagnostically Based Curriculum,* Bloomington, Ind., 34 p., OE-37024, 45 cents; *Perry Preschool Project,* Ypsilanti, Mich., 16 p., OE-37035, 35 cents; *Early Childhood Project,* New York City, 22 p., OE-37027, 35 cents; *Infant Education Research Project,* Washington, D.C., 20 p., OE-37033, 35 cents; *Preschool Program,* Fresno, Calif., 13 p., OE-37034, 25 cents; *Homework Helper Program,* New York City, 16 p., OE-37025, 25 cents; *Communication Skills Center Project,* Detroit, Mich., 11 p., OE-37039, 25 cents; *Junior High Summer Institutes,* New York City, 13 p., OE-37026, 25 cents; *Project R-3,* San Jose, Calif., 16 p., OE-37040, 25 cents; *College Bound Program,* New York City, 8 p., OE-37032, 20 cents; *More Effective Schools,* New York City, 33 p., OE-37042, 40 cents; *Intensive Reading Instructional Teams,* Hartford, Conn., 12 p., OE-37038, 25 cents; *After School Study Center,* New York City, 12 p., OE-37036, 25 cents; *Self-Directive Dramatization Project,* Joliet, Ill., 11 p., OE-37037, 25 cents; *Project Concern,* Hartford, Conn., 14 p., OE-37030, 25 cents; *Elementary Reading Centers,* Milwaukee, Wis., 7 p., OE-37031, 20 cents; *School and Home Program,* Flint, Mich., 12 p., OE-37023, 25 cents; *Programmed Tutorial Reading Project,* Indianapolis, Ind., 9 p., OE-37029, 25 cents; *Speech and Language Development Program,* Milwaukee, Wis., 16 p., OE-37028, 25 cents.

PHILADELPHIA MOVES FOR CHANGE

On May 15, Philadelphia witnessed a "dramatic demonstration of how to communicate with an important constituency," when the West Philadelphia Corporation sponsored its fifth annual community conference "UNIVERSITY HIGH SCHOOL – WHAT'S HAPPENING" and provided a community orientation exercise on the new ES '70 high school.

Thirty-one organizations representing a cross section of community life and activity sent more than 200 participants to the conference. There they became "students of the seventies." They traveled from class to class in small groups for different "subjects" to get the taste and feel of things to come. These included:

1. the kind of attitude change required of staff members of the new school. Professors from the University of Pennsylvania who will work with prospective staff members of the University City High School initiated participants into some of the techniques used in fostering better human relationships. This, according to George Love, turned out to be the most popular of the evening's events.
2. community participation in planning for the feeder patterns to be followed in accepting students into University City High School. This session revealed something of the complexity and enormity of the educational needs of West Philadelphia.
3. an experience of individualized learning achieved by having two of the writers of the new performance-based curriculum on hand to guide participants through a typical learning "package".

Our observer reports, "the evening closed with a general session during which questions could be answered. The dominant concern seemed to be with the schools in West Philadelphia which would not be ES '70 schools. Enthusiasm for the program was evident, and expectations high."

George Love, ES '70 Coordinator in Philadelphia, was among those who assisted in planning and executing the conference. I. Milton Karabell is Executive Director of the West Philadelphia Corporation and Dr. Gaylord P. Harnwell, President of the University of Pennsylvania is its chairman. ES '70 Coordinators Eliot Spack, Martin Raila, Charles Mink, Thomas Dietz and Frank Cassetta and Beatrice Brennan of E. F. Shelley and Company, were guests at the conference.

(Conference materials provided the participants, including the Learning Packages, are stored in the ES '70 Data Bank and are available for reference).

— *TEACHERS AND STUDENTS REGISTER FOR LEARNING LABORATORY* —

A group of 80 children who will be in the 7th or 8th grade in September and are having difficulty in at least one subject will be part of a Human Relations Learning Laboratory at the University of Pennsylvania this summer. The youngsters will attend the "CAMPUS SUMMER SCHOOL." Their teachers will be enrolled in a new course being given by the Graduate School of Education at the University of Pennsylvania designed to orient teachers to the demands of a special program in the new UNIVERSITY CITY HIGH SCHOOL, Philadelphia's ES '70 school. The course is intended to evoke changes in the way teachers perceive and relate to one another and to children in the school. Charlotte Levens, University of Pennsylvania, Consultant to University-related schools, is organizing and directing the program.

Teachers will examine the causes of behavior that reside in feelings and beliefs about present happenings. Self-improvement will be the theme of the course for both teachers and children in the program. Since the focus of the school's program for children will be on the "organic curriculum," summer experience for teachers will attempt to increase awareness of the nature of "organic" instructional matter.

The brochure inviting the youngsters to apply for the summer school is clear, warm and simply stated. Acceptance will be on a first-come, first-serve basis within the limits of getting a balance of boys and girls, children of different ages, children who feel differently about winter school, teachers and themselves as learners (part of the application inquires about this) and children having varying degrees of difficulty in school subjects.

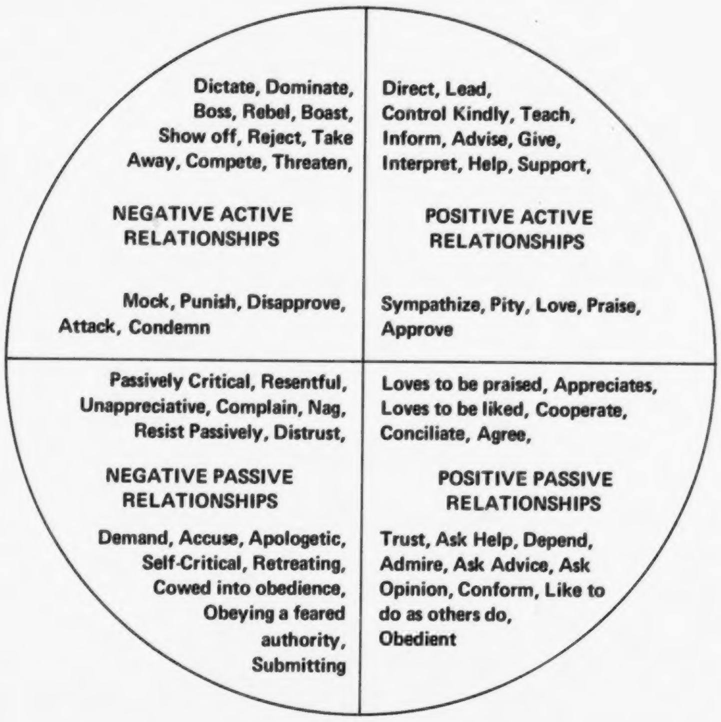
The announcement also features the following questions and provides appropriate answers: 1. What happens at the campus summer school? 2. How can "kids" do that? 3. What if what a group wants to do costs money? 4. What if a group doesn't know anything about the organization they want to run? 5. What if some things that a group needs cost more money than they have or can earn? 6. Will teachers really let us do things our way? 7. What happens when children within a group don't agree? 8. How will being in the summer program help me?

The announcement for teachers includes two appendices of interest to ES '70 readers. The first is the following category system for classifying interpersonal experiences by Erika Chance, "Content analysis

Continued page 7

Continued from page 6

of verbalizations about interpersonal experience." Figure #1, page 133 in *Methods of Research in Psychotherapy* by L. A. Gottschalk and A. H. Auerbach, Appleton-Century-Crofts, 1966:


Dictate, Dominate, Boss, Rebel, Boast, Show off, Reject, Take Away, Compete, Threaten,
NEGATIVE ACTIVE RELATIONSHIPS
Mock, Punish, Disapprove, Attack, Condemn
Direct, Lead, Control Kindly, Teach, Inform, Advise, Give, Interpret, Help, Support,
POSITIVE ACTIVE RELATIONSHIPS
Sympathize, Pity, Love, Praise, Approve
Passively Critical, Resentful, Unappreciative, Complain, Nag, Resist Passively, Distrust,
NEGATIVE PASSIVE RELATIONSHIPS
Demand, Accuse, Apologetic, Self-Critical, Retreating, Cowed into obedience, Obeying a feared authority, Submitting
Loves to be praised, Appreciates, Loves to be liked, Cooperate, Conciliate, Agree,
POSITIVE PASSIVE RELATIONSHIPS
Trust, Ask Help, Depend, Admire, Ask Advice, Ask Opinion, Conform, Like to do as others do, Obedient

The second is a description of the criteria on feedback to be used to help teachers expand the range of behavior they typically use with children, developed by the National Training Laboratories Institute for Applied Behavior Sciences; *Human Relations Training Reading Book 1967*, page 47:

" 'Feedback' is a way of helping another person to consider changing his behavior. It is communication to a person (or a group) which gives that person information about how he affects others. As in a guided missile system, feedback helps an individual keep his behavior 'on target' and thus better achieve his goals.

"Some Criteria For Useful Feedback"

1. It is descriptive rather than evaluative. By describing one's own reaction, it leaves the individual free to use it or to use it as he sees fit. By avoiding evaluative language, it reduces the need for the individual to react defensively.
2. It is specific rather than general. To be told that one is 'dominating' will probably not be as useful as to be told that 'just now when we were deciding the issue you did not listen to what others said and I felt forced to accept your arguments or face attack from you.'
3. It takes into account the needs of both the receiver and giver of feedback. Feedback can be destructive when it serves only our own needs and fails to consider the needs of the person on the receiving end.
4. It is directed toward behavior which the receiver can do something about. Frustration is only increased when a person is reminded of some short-coming over which he has no control.
5. It is solicited, rather than imposed. Feedback is most useful when the receiver himself has formulated the kind of question which those observing him can answer.
6. It is well-timed. In general, feedback is most useful at the earliest opportunity after the given behavior (depending, of course, on the person's readiness to hear it, support available from others, etc.)
7. It is checked to insure clear communication. One way of doing this is to have the receiver try to rephrase the feedback he has received to see if it corresponds to what the sender had in mind.
8. When feedback is given in a training group, both giver and receiver have opportunity to check with others in the group the accuracy of the feedback. Is this one man's impression or an impression shared by others?

"Feedback then, is a way of giving help; it is a corrective mechanism for the individual who wants to learn how well his behavior matches his intentions; and it is a means for establishing one's identity — for answering Who am I?"

NEWS FROM THE NETWORK

MONROE, MICHIGAN: PERSPECTIVES, a publication of the Monroe public schools providing newsbriefs on action for curriculum development, has been sent by Coordinator William Hetrick. Included in the April issue is a review of a trip made by a Monroe staff team to the schools in Duluth. Their report says:

Now what did we see in Duluth? The same as Pittsburgh? Individualized Instruction? Yes! The same method? No!

A second team visited four Duluth Schools and found the basic approach in each school the same, but a number of varieties evident.

Their program has been initiated into the instructional program as an approach to stimulate the student toward a positive responsiveness to school. It hopes to develop self-reliance, cooperativeness and self-direction within the child.

A group of volunteer teachers was formed. Then each became responsible for the development of behaviorally-stated objectives for his area. In written form, each in turn becomes what they refer to as a *contract* or *individual lesson assignment*.

- Each *student* plays a major role in the *selection* of his contracts, study sequence and choice of materials and procedures.
- The student is expected to *understand* the *objective* stated in behavioral terms, follow the procedures listed and take a test on the material covered.
- Students proceed to master contracts as their *abilities, energy* and *interest* dictate. Thus some may proceed rather fast through the basic skills program enabling them to create *enrichment contracts* of their own or to work on those created by the teacher or both.
- *Group learning* is varied. Pupils may work together on contracts. Teachers may conduct (TLP's) Teacher Led Presentations to groups of various sizes or teachers may arrange for (SLP's) Student Led Presentations.

And as a result of this visit, Monroe has started writing contracts in its Project Square Saturday morning workshops to be used in Lincoln School.

What similarities did we see in each?

- Students *moving freely* around classrooms and buildings.
- Use of varieties of materials and procedures.
- *Time* spent by the student in a given subject area determined by his *performance* rather than the clock.
- Teachers spending *more time* answering questions of *individuals* and small groups than lecturing to the entire class.

FOR YOUR FILES

ES '70 DOCUMENTS, FILM:

PARTNERSHIP FOR LEARNING, a filmstrip-tape presentation of ES '70, is now available for rental at $5.00, including postage and handling. Please list the date you prefer and three alternate dates.

Information on availability of reports, films, booklets, and additional copies of ES '70 NEWS, may be obtained from the Washington offices of E. F. Shelley and Company, Inc.: 1730 Rhode Island Avenue, N.W., Washington, D.C. 20036.

MCREL MATERIALS

The Mid-Continent Regional Educational Laboratory has prepared a list of their products available for 1969. These include materials on Cooperative Urban Teacher Education (CUTE), Inquiry Role Approach (IRA), Self-Directed Learning Opportunities (SDLO), Instructional Staff Development (ISD), Teacher Behavior, School Environment, Pupil Inquiry Analysis and Change and a limited literature on Curriculum and Instructional Materials. A detailed description of these materials is available from MCREL at 104 East Independence Avenue, Kansas City, Missouri 64108.

NEW EDUCATIONAL JOURNAL

Publication of a new educational journal that will catalogue and index important articles appearing in more than 200 other educational periodicals has been announced by the USOE. The new monthly is entitled *Current Index to Journals in Education.* Early issues are expected to list about 1,000 articles by title, author, journal citation and descriptive index terms. Other sections will contain a subject and author index. Subsequent issues will cover a wider range of educational periodicals.

ES '70 CALENDAR

NETWORK MEETING:

June 26-27 – Willingboro, New Jersey.

INSTITUTES:

June 22-27–Invitational conference on Computer-Assisted Guidance Systems and Their Implications for Counseling Practice in Education, Harvard University Graduate School of Education.

July 21 – August 1 – Workshop for principals of ES '70 schools, Duluth, Minnesota.

Institute in the Teaching of Secondary Reading, Capuchino High School, San Mateo, California, Time to be announced.

ES '70 RESEARCH REPORT ISSUED

The first ES '70 Research Report has been distributed to members of the Network by E. F. Shelley and Company, Inc., as part of a periodic information exchange for ES '70 personnel. It includes information gathered from visits to SSCIP (Secondary School Curriculum Improvement Program) contractors, related research efforts and reports from Office of Education project directors as well as materials directly concerned with ES '70 Network projects.

The package of materials distributed with the first Research Report includes:

1. A sampler entitled "The Need to Achieve" from the Achievement Motivation Course for teachers which gives a feeling for the nature of the materials. The complete course will be published this fall by Educational Ventures, Inc., of Middletown, Connecticut. The materials will include a teacher manual containing background information, a teacher-run N-Ach (need to achieve) course for teachers, and specific guides for giving courses to students. In addition, there will be eight separate modules of instructional material from which teachers may select in giving their courses.

2. A copy of the "Conclusions and Recommendations" section of the final report of the Nova University Teacher Role project. Copies of the full report may be obtained directly from Nova University, Ft. Lauderdale, Florida.

3. A compilation of abstracts in individualized instruction from ERIC entitled "A Basic Reference Shelf in Individualized Instruction." (ERIC Clearinghouse on Educational Media and Technology at the Institute for Communication Research, Stanford University, Stanford, California 94305.)

4. A final report of the National Project for the Improvement of Televised Instruction entitled 'Toward a Significant Difference: Final Report of the National Project for the Improvement of Televised Instruction, 1965-1968."

5. "An Essay on Federal Incentives and Local and State Educational Initiative," regarding ESEA Title III, produced for USOE by Charles S. Benson and James W. Guthrie of the University of California at Berkeley.

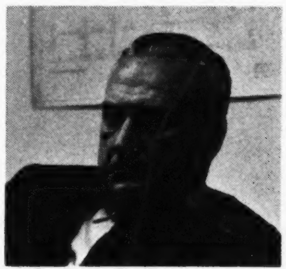
6. A booklet on Academic Freedom in Secondary Schools from the American Civil Liberties Union.

EDUCATIONAL SYSTEM FOR THE SEVENTIES • A COOPERATIVE PROGRAM FOR EDUCATIONAL INNOVATION
ES '70
NEWS
VOLUME 2 – NO. 11
SEPTEMBER, 1969

WILLINGBORO MEETING VIEWS ES'70 AS WORKING MODEL FOR INSTITUTIONALIZING CHANGE

LIVINGSTON CITES TANGIBLE RESULTS

Dr. Hugh Livingston
new ES '70 President



Robert E. Pruitt now
Acting Director, DCVER

A new view of ES '70 as a working model for institutionalizing change emerged from two days of intensive discussions at the annual meeting of the ES '70 Corporation held at Willingboro, New Jersey, June 26, 27, 1969. Educational programs, it was suggested, exist in great numbers; ES '70 is unique in its effort to coordinate them.

Despite the extreme concern expressed at the meeting over the decrease in funding from the U.S. Office of Education, the identification of newly conceived priorities and the differences in strategies urged by the operating school personnel and university consultants, a marked advance was noted in acceptance of ES '70 goals.

SEEK TO INCREASE LOCAL IMPACT

To increase the visible impact of the program at the local level and still retain the benefits of association with the university theoreticians who have held the bulk of the research contracts to date, the network recommended that the local districts be funded in the future and that they engage university consultants as sub-contractors for their projects. The ES '70 Corporation would hold the fiscal responsibility for the program.

"A good deal is going on in our schools that is moving our districts toward individualizing instruction. This is a real and tangible and important result of our participation in ES '70," said Dr. Hugh Livingston, new President of the non-profit corporation, in reviewing the reports from Willingboro. "A new flexibility in approach has enlivened the teachers' attitudes, the districts' commitments and the students' opportunities

Continued page 2

Dr. Gabriel Reuben reading telegram from Governor Richard Hughes of New Jersey. Others, from left to right, are Eliot Spack, Mineola Coordinator; Dr. Louis Formica, Asst. Superintendent of Schools, Mineola; and Charles Mink, Coordinator from San Mateo.

USOE PHASING OUT SUPPORT; PRUITT ISSUES STATEMENT

Planned Bureau of Research support for ES '70 is being phased out. The following statement has been issued by Robert E. Pruitt, Acting Director, Division of Comprehensive Vocational Education Research, U.S. Office of Education:

"When the ES '70 network was formed in May of 1967, it was agreed that the Bureau of Research would provide support to the network by funding the salary and travel expenses of a coordinator for each of the participating districts. Management assistance to the network through E. F. Shelley and Company, Inc. was also provided. During the past year, it was planned that after a reasonable period of support, the network would become fiscally independent of the Office of Education. The network has become incorporated and a plan has been devised to assess membership schools for the purpose of maintaining an Executive Secretariat's office. It was therefore agreed that the management assistance contract with E. F. Shelley and Company, Inc. would be gradually phased out and terminated at the expiration of the present contract period in November of 1969. The coordinators and coordinators' travel have been funded through June of 1970, at which time that funding will be terminated.

"The termination of these contracts in no way indicates a lack of interest and concern on the part of the Division of Comprehensive and Vocational Research regarding the importance of a network of schools to expedite the implementation of curriculum reform. This action should in no way be interpreted as detracting from the concerns of this office as expressed over two years ago through the paper by Bushnell and Morgan entitled "The Organic Curriculum." We will continue to support research related to making education more relevant, consistent with the best that we know about the learning process and providing equality of learning opportunities for *all* students."

NETWORK MEETS IN WILLINGBORO

Continued from page one

for learning," the San Mateo, California Superintendent continued.

REMARKABLE CONSENSUS NOW TAKEN FOR GRANTED

"Consider how diverse our membership is," he said. "We represent a wide cross-section of population, geography, poverty and wealth, status and aspiration and yet there is a remarkable consensus in what we agree upon and now take for granted. We agree that learning should be individualized, that school should be looked upon as a learner-development system, not as a teaching system, that learning should be integrated so that there not be artificial barriers between vocational and academic areas, that the learning environment should be extended beyond the school walls out into the community, that professional staff should be augmented with the talents and resources of various community people, that students and staff should participate in educational program planning and decision making, that evaluation should be made against the best existing alternatives, always considering paramount the individual capability and style of each student."

MAJOR CHANGE IN EMPHASES

"This is no small accomplishment; for we have achieved a major change in the emphases of educational goals over what was the expressed conventional wisdom a few short years ago."

Dr. Gabriel Reuben, the host Superintendent of Schools in Willingboro, chaired the opening meeting. He read a telegram of greeting from Governor Richard Hughes who said, "I find great merit in the ES '70 program, which brings together professional educators who are devoted to ensuring that our educational system will meet the needs of the present and the challenges of the future."

MARBURGER RECORDS HIS SUPPORT FOR ES '70

Dr. Carl Marburger, a Director of the ES '70 Corporation and New Jersey Commissioner of Education, was unable to attend the meeting, but was represented by Dr. William Phillips, Director of the Division of Research, Planning and Evaluation of the New Jersey State Department of Education. It was the wish of the Commissioner, Dr. Phillips said, to go on record as supporting the ES '70 concept "irrevocably" because it "attempts to break new ground in secondary education." He encouraged the network to continue emphasizing outputs because the clear statement of objectives permits the institutionalizing of ideas. In working toward a radical re-organization of the secondary school, the network should maintain a sound financial base and foster the local-state-federal cooperation needed for solving the massive problems of American education, Dr. Phillips said.

David Bushnell, Director of the USOE Division of Comprehensive and Vocational Education Research, presented the rationale for the small group discussions which covered such areas as: identifying data requirements for evaluation and decision-making; all aspects of the educational process; defining educational output; improving dissemination and communication techniques on validated results; concentrating greater resources and effort on staff development. A continuing dialogue on the meaning of ES '70, its narrow and broad implications, occupied discussion time as well.

ARTHUR PACE
SR B BRENNAN

Mike Nisos, Aerospace Education Foundation; Larry Brennan, Chicago Coordinator; Robert Pruitt, USOE.

CHIEF CONCERNS OF NETWORK

Father Thaddeus O'Brien, Chicago, Illinois, newly elected Vice President of the ES '70 Corporation, summarized the discussions at the conclusion of the meetings:

The chief concerns of the network at the present time are the decrease of funding from the Office of Education and the location of funding agencies at the state level, where political issues make it difficult for an inter-state project to be given priority. It would be recommended to the Board of Directors that funding be secured for the printing of curriculum materials already available in three of the network districts (Fort Lauderdale, Quincy and Bloomfield Hills) and for their dissemination to the other districts. The Board of Directors would be asked to continue and expand staff development efforts, in the areas of performance-based curriculum writing and in the growth of the teacher "as a human being." In developing contracts, fiscal responsibility should be placed in the hands of the ES '70 Corporation, which would then delegate to one or more of the local districts rather than to a university. The university would then become the recipient of sub-contracts at the discretion of the network.

Reporters for the small group discussions were: Elizabeth Robbins, USOE, DCVER; Beatrice Brennan, E. F. Shelley & Company, Inc.; Col. Michael Nisos, Aerospace Education Foundation; Lewis Rhodes, E. F. Shelley & Company, Inc.; Marcel Gilbert, Assistant Superintendent, Willingboro, New Jersey.

The reactor panel was composed of the following

Continued page 3

Martin Raila, Baltimore; Duane Nielsen, USOE; Walter Howard, Texas Education Agency; John Letson, Atlanta.

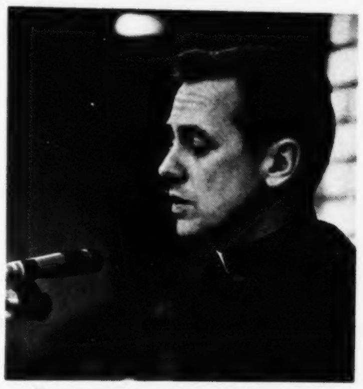
Robert Boston, Bloomfield Hills; John F. Haberbosch, Colorado State Department of Education; Father Thaddeus O'Brien, Chicago.

ES '70 BOARD OF DIRECTORS ELECTED

Dr. Hugh Livingston, Superintendent of Schools for the San Mateo Union High School District, California, was elected President of the ES '70 Board of Directors at the June network meeting in Willingboro, New Jersey. Other officers elected were: Vice President, Father Thaddeus O'Brien, Assistant Superintendent, Archdiocese of Chicago, Illinois; Secretary, Dr. Ben Wallace, Superintendent, Mineola, New York; and Treasurer, Dr. Gabriel Reuben, Superintendent, Willingboro. These officers comprise the ES '70 Executive Committee.

Also elected to serve as members of the Board of Directors were: Dr. Carl Marburger, New Jersey Commissioner of Education; Dr. Ira Polley, Michigan Superintendent of Public Instruction; Dr. Eugene L. Johnson, Superintendent, Bloomfield Hills, Michigan; and Dr. Paul Smith, Superintendent, Boulder, Colorado. All Board members were elected to serve one year terms.

(See Page 6 for story on Commissioner Polley)



Father Thaddeus O'Brien, new ES '70 Vice President

ES '70 Coordinators: Eliot Spack, Mineola, New York; Lucille Santos, San Antonio, Texas; Lawrence Brennan, Chicago, Illinois; Glenn Hill, Portland, Oregon.

TWO PROPOSALS MADE TO NETWORK

Two proposals were made to the network by Dr. Richard Bell of the Ampex Corporation and Jack Bratten of Systems Development Corporation.

Dr. Bell proposed that because of ES '70's orientation toward learner-based education and its commitment to achieve it through the most appropriate utilization of human and technological means, it consider joining with the education industry in an Instructional Technology Demonstration. The objectives of this continuing demonstration would be:

1. To provide channels through which educational performance objectives could be brought to bear on equipment and material development, with simultaneous development of the hardware and software to meet the learner's needs.
2. To provide, through the 19 schools of ES '70, a setting for field-testing instructional equipment and for validating learning materials before their release to the market.
3. To study educational effectiveness of educational hardware and software and to learn more about the inter-active relationship between the two.
4. To provide a nationwide network of schools where other secondary school educators could see, in action, exemplary programs of modern technology in secondary education.

The initial steps he proposed to implement these objectives would be the establishment of an Instructional Technology Advisory Committee made up of representatives of interested companies before the Fall, 1969 network meeting. It would join with the schools at that time in the beginnings of a dialogue on specific needs and projects.

Dr. Bratten presented information about his company's proposal to develop in-service training materials and procedures relevant to the needs of the ES '70 schools. The full details of this proposal have been provided to each member school district by mail. The hoped-for outcome of the project will be documented learning management procedures for the classroom and for the school, in addition to a list of desired personnel skills.

The following member school districts gave tentative indications of their desire to work with SDC in this research and development: Baltimore, Boulder, Quincy, Houston and IAIA.

PARTICIPANTS

Participants at the network meeting, in addition to Superintendents and Coordinators from the member districts, included representatives of state education departments, university and foundation consultants, personnel of the U.S. Office of Education, invited industry representatives and staff of E. F. Shelley and Company, systems consultants for ES '70.

Thomas Dietz, ES '70 Coordinator for Willingboro, assisted Dr. Reuben in making the arrangements for the meetings. In addition to the hospitality offered officially by the district, the Willingboro PTA Council and the Willingboro Jay Cees feted the group at lunch and at an outdoor picnic. Mr. George Brandau, principal of Willingboro Memorial Junior High School, who lives in one of the nation's original homesteads, opened his home for the picnic.

1974?

"What will an ES '70 school system look like in 1974?" was one of the questions put to the participants at the Willingboro meetings. There seemed to be general agreement that no two educational systems should look exactly alike. Given the tacit agreement that learning should be individualized and comprehensive rather than specialized, variation in specifics would be wide. Duane Nielsen, U.S. Office of Education, observed that the ES '70 educational process would be some combination of tested alternatives, selected according to local needs.

Agreement was expressed by a significant number of participants about *common characteristics* which these alternative techniques would display. Among them were the following:

Staff: Adults with expertise would be working with students. These adults would be drawn from varieties of backgrounds and would not all be certified teachers. Students would be working with other students. Counselors would be helping students in the students' own domain. Both staff and students would participate in program planning and in decision-making in any area which affected them. There would be an on-going program of staff development, individualized to suit their needs. These "individualized in-service learning experiences" would be made available to all adults working with students. No specific type of teaching technique (e.g. team teaching) would be favored over any other, but any type which proved effective in "generating student behaviors" geared toward desired outcomes would be utilized. Teachers would be competent and well-trained for a learner-centered educational system.

Instructional Materials and Practices: Students would be learning at each one's rate of progress. Occupational experiences would form an integral part of secondary education for all students (not all agreed with this, however). There would be strong student participation in control of student behavior. Objectives for students would be available to them in writing and students would be involved in curriculum design. The individual characteristics of each learner would play a major role in the selection of objectives, sequence of study and choice of materials and procedures. Materials would be adapted to the learning styles of each student (reference was made to Fisher's work at UCLA). In designing learning experiences, full use would be made of all the new technologies. "School" would be looked upon as a *learner-development system,* not as a teaching system. What we are looking for, is "transferability of response."

Environments for Learning: The "school" would be open late into the evening and all during the year. In choosing environments for learning, school administrators would ask: "What are the conditions which maximize student yield?" The learner context would be looked upon as a "relevant life-simulation system." As such, it would be taken for granted that contexts other than that of the classroom could deliver the desired responses. The larger community would be involved in this response-delivery system and meet frequently with the school principal. Scheduling would be flexible, in the broadest understanding of that term. Provision would be made for all kinds of learning experiences (large-group, small-group, one-to-one, individual-with-tools-and-materials, etc.). There would be agreement as to educational goals among the various publics served and/or influenced by educational programs. There would be an "open campus," extending into the social life of the students. Graduates would be free to come back to use the learning facilities of the school. There would be a continual up-dating of programs, in line with previously agreed-upon goals.

Evaluation: All evaluation of programs would be made against the *best existing alternatives.* Each student would receive diagnostic and prescriptive counseling to help him in the choice of routes toward specified objectives. Modes of learning prescriptions would be limitless and would take into account *how and why* each student learns what he learns. There would be a "validated scale of student performance as measured by acceptable adult behaviors." There would be a careful ongoing analysis of the function and role of both the individual and the institution in education. Evaluation would extend not only to programs but also to combinations of programs; not only to learning but also to efficiency and effectiveness of learning. There would be careful quality control and cost effectiveness control of educational programs.

1969 ES '70 ROSTER 1970

DISTRICT OR SCHOOL	SUPERINTENDENT	COORDINATOR	PRINCIPAL
ATLANTA, GEORGIA	Dr. John W. Letson	Dr. James O. Knuckles	
BALTIMORE, MD.	Dr. Thomas D. Sheldon	Mr. Samuel Sharrow	Mr. Clarence W. Blount
BLOOMFIELD HILLS, MICH.	Dr. Eugene L. Johnson	Mr. Robert E. Boston	Mr. Donald Kevern
BOULDER, COLORADO	Dr. Paul E. Smith	Mr. William H. Reed	Mr. John Hoback
BREATHITT CO., KY.	Mr. Eugene Sebastian	Mr. William N. Ryan	Mr. Millard Tolliver
BROWARD CO. *(NOVA)*, FLA.	Mr. Warren G. Smith, *Director of Nova Schools* Mr. Ralph N. Staten, *Supt. Broward County*	Mr. Kenneth T. Smith	Mr. Hilton Lewis
CHICAGO *(ARCHDIOCESE OF)*, ILL.	Father Thaddeus O'Brien	Miss Geneva Ann Pedersen	Rev. Vernon Malley
DULUTH, MINN.	Dr. Donald H. Peckenpaugh	Mr. John Muldoon	Mr. John Cavanaugh
HOUSTON, TEXAS	Dr. Glenn Fletcher	Dr. Arthur Pace	Mr. Frank Wesley
MAMARONECK, N.Y.	Dr. Otty R. Norwood	Mr. Milo Dalbey	Mr. Everett L. Knobloch
MINEOLA, N.Y.	Dr. Ben Wallace	Mr. Eliot G. Spack	Mr. John L. Sullivan
MONROE, MICH.	Mr. Robert D. Christiana	Mr. William M. Hetrick	Mr. Leo Perelman
PHILADELPHIA, PA.	Dr. Mark R. Shedd	Mr. George H. Love	Mr. Robert D. Eaverly Mr. Walter Scott
PORTLAND, OREGON	Dr. Robert W. Blanchard	Mr. Lawrence W. Ayers, Jr.	Mr. Bob Schwartz
QUINCY, MASS.	Dr. Lawrence P. Creedon	Mr. Stewart S. Sargent	Mr. Lloyd M. Creighton
SAN ANTONIO, TEXAS	Dr. Jose A. Cardenas	Mrs. Lucille L. Santos	Mr. Maige M. Rodriguez
SAN MATEO, CALIF.	Dr. Hugh Livingston	Mr. Charles W. Mink	Mr. Peter Palches
SANTA FE *(INSTITUTE OF AMERICAN INDIAN ARTS)*, N. M.	Mr. Lloyd New	Mr. James McGrath	
WILLINGBORO, N.J.	Dr. Gabriel H. Reuben	Mr. Thomas Dietz	Mr. Robert A. Schmidt

SUMMER INSTITUTES INVOLVE OPERATING PERSONNEL IN ES '70 ORIENTATION, TECHNIQUES FOR INDIVIDUALIZING LEARNING

Personnel from ES '70 schools participated in a number of special summer institutes designed to better acquaint them with the goals of the ES '70 program and provide them with an understanding of new teaching and administrative techniques.

At a workshop for ES '70 school principals, held in Duluth, Minnesota, July 21 — August 1, keynote speaker Dr. Leon Lessinger, Assistant U.S. Commissioner of Education, offered strong support for ES '70 network activities. Other resource personnel from the Office of Education, Bureau of Research, were: Dr. Duane Nielson, Chief of Organization and Administration Studies Branch, Division of Comprehensive and Vocational Education Research; Robert Pruitt, Acting Director, DCVER; and Albert V. Mayrhofer, Special Assistant to Dr. Lessinger.

The 28 participants at the workshop, representing all but two of the ES '70 districts, attempted to meet the following objectives through a group problem-solving experience:

1. Develop on the part of the principals a closer identity with the ES '70 project.
2. Develop in the principals new techniques and skills that they could use to implement programs leading to the overall goals of ES '70.
3. Develop close, personal and organizational relationships between the principals.
4. To have the principals work on projects that would be useful to them in their own schools as they begin operation in the fall.
5. Develop a mechanism for future collaborative efforts between the principals.

The Office of Education has extended the workshop grant until December 31 so that an evaluative follow-up conference can be held for the principals who participated in the workshop.

The Development of Individualized Instruction was the title of a teacher training institute held in Willingboro, New Jersey, July 21 — August 8. The workshop offered a program in the structure of individualization, the writing of disciplinary behavioral objectives, the development of realistic concepts, and the formulation of an action program of implementation in the various districts represented.

More than 40 participants heard resource personnel including: Dr. Bruce Tuckman, Rutgers University; Mr. Kenneth Smith, Nova Schools; Dr. Roger Tunks, Portland, Oregon; Mr. George Love, Philadelphia; and Dr. Richard Bell, Ampex Corporation.

An invitational *Conference on Computer Assisted Systems for Education and Guidance* was held at Harvard University Graduate School of Education June 22 — June 27 under the direction of Dr. David Tiedeman and Dr. Rhoda Baruch. Of the 40 participants, seventeen were representatives from ES '70 schools.

The purpose of the Harvard conference was to increase the working counselor's understanding of the rapidly developing computer-based systems for guidance and counseling services and to clarify issues relating to how these systems will fit into an individual progress instructional environment. Those attending the conference felt it was an important experience which changed their attitudes toward technology and its potential for guidance.

Participants were exposed to three different guidance systems: the ISVD (Information System for Vocational Decisions), developed by Dr. Tiedeman at Harvard; the Educational and Occupational Orientation System developed by IBM; and Project Plan of the American Institutes for Research.

ES '70 NEWS

ES '70 NEWS is published at regular intervals during the school year to keep readers up to date on current ES '70 activities and progress. Examples of representative activities are reported in each issue.

ES '70 NEWS is prepared under the supervision of the ES '70 Board of Directors by E. F. Shelley and Company, Inc., 415 Madison Avenue, New York, New York 10017.

NEWS FROM THE NETWORK

DR. POLLEY JOINS ES '70 DIRECTORS

Dr. Ira Polley
Michigan Superintendent
of Public Instruction

Dr. Ira Polley, Michigan Superintendent of Public Instruction, has been elected to succeed Jack Nix, of Georgia, as a member of the ES '70 Board of Directors. Dr. Polley joins Dr. Carl Marburger of New Jersey as one of the two chief state school officers on the eight-member Board.

A native of Alaska, Dr. Polley has served as State Controller in Michigan and has had extensive experience in state and federal government. He has taught at Michigan State University, the University of Minnesota and Wayne State University. He belongs to the American Political Science Association, the American Society for Public Administration and the American Arbitration Association. He has been published and honored in his field of political science in which he holds degrees from Indiana University and the University of Minnesota.

Dr. Polley was formerly Executive Director of the Michigan Council of State College Presidents and Secretary of the Michigan Council for Public Higher Education.

Bloomfield Hills and Monroe are the two local school districts from Michigan that are members of the ES '70 Corporation.

INSTITUTE OF AMERICAN INDIAN ARTS WELCOMED TO ES '70

The Institute of American Indian Arts, Sante Fe, New Mexico, was officially welcomed as the nineteenth member of the ES '70 network by Dr. Gabriel Reuben at the annual meeting in Willingboro.

Lloyd New, the Director of the Institute, responded by describing the unique features of this national boarding school for Indian children. The 350 students come from 80 tribes spread throughout the nation. All of them are interested in the arts and three-fourths of them are poor. The objective of the 9-14 course offered at the Institute is to restore to the students a sense of pride in their Indian heritage by encouraging creativity in the fine arts within their own culture and to prepare them to take their place as contributing members in American society. Of the 39 percent who now go to college, 60 percent remain to complete their higher education.

James McGrath, the head of the arts program at the school, said in a recent New York *Times* article, "Our philosophy is that we want to draw on traditional material, skill and technique. This does not mean that an Eskimo will only carve ivory figures just as his ancestors did. But by exposing them to the heritage of their philosophy and their esthetics, they can bring something unique to art. The look of a piece of art, the sound of music, the reading of poetry will be as if from their own roots."

Institute of American Indian Arts being welcomed into ES '70. (Left to Right) Father Thaddeus O'Brien, David Bushnell, Lloyd New, Director of the IAIA; Charles Zellers, Associate Commissioner of the Bureau of Indian Affairs; Dave Warren, IAIA.

Eugene Johnson, Bloomfield Hills, Mich.; Lloyd New, Director, Institute of American Indian Arts, Sante Fe, describing his school; George Donahue, E. F. Shelley & Co.; Eliot Spack, Mineola, N.Y.

QUINCY'S CREIGHTON HEADS NEW ES '70 PRINCIPALS' ORGANIZATION

The principals of ES '70 schools have formed a new organization to assist in the operation of the ES '70 program. The new group, which met and organized at the Duluth, Minnesota summer workshop, is composed of the principals of the secondary schools in the ES '70 network. The organization will have a non-voting representative on the Board of Directors of the Corporation and will have the same status as the coordinators in the network organization.

Lloyd Creighton of Quincy, Massachusetts, was elected Chairman and will represent the principals on the Board of Directors. The Vice Chairman is Leo Perelman, Monroe, Michigan. Peter Palches, San Mateo, California, was elected Secretary.

The principals organization hopes to cooperate with the Board and bring first-hand information on school operations to the attention of the network. In order to exchange ideas and discuss common problems, the group will hold periodic meetings, one of which will be held at the time of the annual meeting of the National Association of Secondary School Principals.

COMMISSIONER ALLEN URGES SECONDARY PRINCIPALS TO SEEK APPROPRIATE CHANGE; CITES STUDENT UNREST

Commissioner
James E. Allen, Jr.

U.S. Education Commissioner James E. Allen, Jr., urged principals of the Nation's 26,000 public high and junior high schools to address themselves "forthrightly" to the issues which underlie student unrest, in a message prepared at the request of the National Association of Secondary School Principals.

"I urge you to take the initiative in bringing together, as this new school year begins, groups representative of all segments interested in your school to identify key issues of concern and to determine what alternatives there are for achieving appropriate changes in the policies and practices of your school," said Commissioner Allen.

He noted that school administrators throughout the country are considering how best to cope with possible student disorders. Such preparations are important, he said, but it is even more important to seek the causes of growing militancy in the secondary schools. He added:

"Our students are telling us that change is needed in our schools. Indeed, much of what they call for has been urged by many principals and other educators in the past. Concerns and reforms presented by our students are important and warrant careful consideration. Perhaps by responding to them patiently and thoughtfully, we can help make the 1970's an era of productive change in our Nation's schools."

Dr. Allen pointed out that many educators expect student unrest in secondary schools to increase this year, although the problem has received less attention from the mass media than disturbances on college campuses.

"The potential is there," he said. "Just in terms of numbers there are approximately 26,000 public secondary schools in the country compared to 1,600 four-year public and private colleges and universities, and these secondary schools enroll three times as many students of a younger, more volatile age."

The Commissioner listed some of the major issues that seem to be arising in schools across the country:

1. How can we assure that public schools indeed are public in the sense that citizens whose children are served feel their schools are responsive and responsible to them?

2. How can we make the educational offerings of our schools more relevant to the society from which our students come and to the world of work for which our students are preparing?

3. How can we further improve and objectively measure the quality of teaching in our schools to the end that public confidence in the performance of our schools will be enhanced?

4. How can our schools be more effectively managed through greater and more meaningful sharing of decision-making responsibility and authority with parents, teachers and students?

5. How can we encourage good citizenship in the future by assuring broader rights and responsibilities of citizenship for students in the rules and regulations of our schools?

6. How can we tangibly demonstrate greater cultural awareness and respect for the racial and ethnic groups represented in our schools?

7. How can we establish orderly channels for the registering of legitimate concerns by those our schools serve so that there are alternatives to confrontation and demonstration?

FOR YOUR FILES

ES '70 DOCUMENTS, FILM.

PARTNERSHIP FOR LEARNING, a filmstrip-tape presentation of ES '70, is now available for rental at $5.00, including postage and handling. Please list the date you prefer and three alternate dates.

Information on availability of reports, films, booklets, and additional copies of ES '70 NEWS, may be obtained from Robert Pruitt, Acting Director, DCVER Bureau of Research, Room 3019, U.S. Office of Education, 400 Maryland Avenue, Southwest, Washington, D.C.

ES '70 CALENDAR

NETWORK MEETINGS:
October 20-27 – Quincy, Massachusetts
June, 1970 – Chicago, Illinois

AEROSPACE EDUCATION FOUNDATION MEETING
January 26-28, 1970 – Washington, D.C.

BOARD OF DIRECTORS MEETS

REDEFINITION OF ES '70 GOALS AND TASKS AGREED UPON

Responding to a request from the network membership at the Willingboro meetings, the Board of Directors has agreed upon the following redefinition of the purpose and tasks of the ES '70 Corporation:

"ES '70, Inc., is a communication system linking member districts, State Departments of Education and the Federal Government in a common effort to achieve the purposes of the network which are as follows:

- providing an individualized education for each student,
- highly relevant to the adult roles which he will play,
- economically practical within available public resources,
- based on behavioral and related sciences,
- employing suitable systems of school organization,
- utilizing appropriate educationally oriented technology,
- locally planned and directed,
- approved, and implementation assistance provided by the appropriate state department of education,
- financed by federal, state, local and private funds,
- designed for ultimate availability to all school systems.

To achieve the purposes enumerated above, the network will serve to stimulate ideas in the member districts and to attempt to secure funds to implement these ideas:

- for local district use; for full or partial network administration where advantageous; for corporate support of an executive secretary, of administrative back-up and of coordinators in the member districts.

The ES '70 corporation will coordinate and monitor member district pertinent activities and programs. It will advise the Office of Education and other appropriate agencies of research needs and staff development, management and evaluative activities necessary for achievement of the ES '70 goals."

NETWORK TO MEET IN QUINCY, MASSACHUSETTS, OCTOBER 30-31

Quincy, Massachusetts has been selected by the ES '70 Board of Directors as the site for the October 30, 31 network meeting. The June, 1970 meeting is slated for Chicago.

The Board meeting in Denver, Colorado on July 31 and August 1, voted to establish a Corporate office in Washington. The office of Executive Secretary for the Corporation has not been filled as of this date.

Joining the Directors for their meetings in Denver were: Mr. Gene Peterson, Acting Chief, Bureau of Research, Contract and Grants Division of the U.S. Office of Education; Mr. Robert Pruitt, Acting Director, DCVER of the Office of Education; Mr. Charles Mink, representing the ES '70 Coordinators; and Dr. George Donahue of E. F. Shelley and Company, Inc.

It was agreed to invite a representative of the newly formed ES '70 principals organization to future Board of Directors meetings as a non-voting participant.

YOUTH TUTORING YOUTH PROGRAM

The Board was informed by Mrs. Mary Kohler, Director of the National Commission on Resources for Youth, that the Youth Tutoring Youth program, now operating in 22 large cities, including Duluth, Minnesota, an ES '70 district, and several rural areas, is being linked to the Careers Opportunity program of the EDPA of U.S. Office of Education. Mrs. Kohler stated that "a number of school systems are using the tutoring of youth as the first rung on the lattice of Career Development aiming at producing teachers. Such programs," she said, "could become one more asset for the ES '70 schools."

The results of the September 19 Board of Directors meeting in Washington, D. C. were not available at press time.